SEQUENCE LISTING

<110> diaDexus, Inc.
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     Sun, Yongming
     Liu, Chenghua

<120> Compositions and Methods Relating to Breast Specific Genes and Proteins

<130> DEX-0432

<150> US 60/389,327
<151> 2002-06-14

<160> 171

<170> PatentIn version 3.1

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10

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nnntttccnt gnnagnggnt nntttcntac nantnaanan ntgnagngng nnctgnncac       300

tantntgncn cntgntnntc tngnctnnnt cgcaangnnt attnncaant nanccngncn       360

tncacgntna ntntntntan annactagna nangcntngc antntncntn anangncact       420

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gaaatccgaa atttcttggg tgaaaaatat atccgcaggg ttcggatgag accaggtgtt      480

gcttgttcag tatctcaagc ccagaaagat gaattaatcc ttgaaggaaa tgacattgag      540

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taagatctaa gagttacctg gctacagaaa gaagatgcca gatgacactt aagacctact      720

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gccccgggcg attttattgt tgggcgggcg gcgcgaaacc agggcctcag tcaacggcca      900

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aatgtcacca ctatctggag atttcgacgt gttttcctct ctgaatctgt tatgaacacg      180

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tactgtaggc acagaaggga atggaggcat ctgagcattt tattttccat ctctacagca      540

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tactgtaggc acagaaggga atggaggcat ctgagcattt tattttccat ctctacagca    540

cctcagaaca cctacatttt attttttttc ttctcagaaa tgtcttaata agaggactgc    600

agtgtactca agtttcccaa tgacagggta gggatgccaa ccttctcttt cattggcagc    660

tcatagtatc caagtttctc aaaaccctaa gccatcttat ttgttctttg gaactttgtg    720

gcctaccaca gtgcaattct cattcggtgt ttaataactc gagccg                  766
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<210>   21
<211>   647
<212>   DNA
<213>   Homo sapien

<400>   21
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acgtttgcag agcagtgggc acaatgttta caatgtatgt gtatgtcact ttcggtacct    120

gtgaatgcat ggggacgtgc tgaacccgaa aaaaagtgcc tttccataag gactgcaata    180

gagagggcaa tttaccctgg tggtacacgg aacctagatt cactcctgcc atgccttgcc    240

aatagtaagc tgcagggtgg aacaagaaat cacttgctct ggggggaagg gaggggggaa    300

tgggtgtgtc agctgggtag atacaaaccc tgaaaagaga atccatgtgc tgctggcagg    360

caacattttt taaagctctt tcagaaaccc tcatatttgg ggtttctttt caggaaacat    420
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26

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tcctgtggag ggaaaacgaa tatgaagata attttcagct aattatctgg gtgacccaga      480

atcgtgtata tggctatagg atagacttct taataatggc aagtgacgtg cccctgggga      540

aaggtgcttt atgtaccgtg tgtgcgtgta tgtgtgtgta tctatacaag tttgtcagct      600

ttggcatgac tgtttgtttg tctcgaaaac caataaactc aaagttt                   647
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<210>    22
<211>    698
<212>    DNA
<213>    Homo sapien

<400>    22
actagcaccg ggcaagcaga caacataatt tatttccaga aaacaacaga atgaacatca       60

tcatgaatac atgaatcggc tgtgatgtgt gaactgctaa gggccaaatg aacgtttgca      120

gagcagtggg cacaatgttt acaatgtatg tgtatgtcac tttcggtacc tgtgaatgca      180

tggggacgtg ctgaacccga aaaaaagtgc ctttccataa ggactgcaat agagagggca      240

atttaccctg gtggtacacg gaacctagat tcactcctgc catgccttgc caatagtaag      300

ctgcagggtg gaacaagaaa tcacttgctc tggggggaag ggaggggggga atgggtgtgt      360

cagctgggta gatacaaacc ctgaaaagag aatccatgtg ctgctggcag gcaacatttt      420

ttaaagctct ttcagaaacc ctcatatttg gggtttcttt tcaggaaaca ttcctgtgga      480

gggaaaacga atatgaagat aattttcagc taattatctg ggtgacccag aatcgtgtat      540

atggctatag gatagacttc ttaataatgg caagtgacgt ggccctgggg aaaggtgctt      600

tatgtaccgt gtgtgcgtgt atgtgtgtgt atctatacaa gtttgtcagc tttggcatga      660

ctgtttgttt gtctcgaaaa ccaataaact caaagttt                             698
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<210>    23
<211>    739
<212>    DNA
<213>    Homo sapien

<400>    23
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gcagacaccg tctcctccct ccctcaagga cctctgagct tgcactccaa ttcctctccc      180

acactcacct ttctcctttc tgttcctctt gggatccagg tttatttgag gagataggaa      240

aagctcctga tccagcaggt tttattctta aatttgtaac aaagtaaatc acagaacctc      300

cacccagcat ccaggcctct ggttctctcc ctccttccca ggtataggcc ggctttcaga      360

aaccctgcac cacatagacc ctgggcctga attgctgtga gtaataatga ctctgctcgt      420

aatttgtgtc cttctgcttg gaactgtttc ctttttagtt tggtcaccct cccagagctg      480
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27

```
gtttcaatgg gggcataccc attatgggat gcagggcatc ctgcatcctg aggaattttt        540

tttcctccaa aaatgaaacc ttgaaatgag gacattgtcc tgtccacgga ctgcacaaca        600

acactgagcc tcaaggactc atactggcat ttttcttctt ttgcagagtg tgggcaccct        660

ggcttcaagc tcacgagaaa ccaggtcggg atttaaacaa tgttgggtta aagcaaagtt        720

tcataaagac agaatcaag                                                     739
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<210>    24
<211>    900
<212>    DNA
<213>    Homo sapien

<220>
<221>    misc_feature
<222>    (75)..(75)
<223>    n=a, c, g, or t


<400>    24
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ggaacgtatg tgaangcata ttggtgctct gggcttttgc ataatttcaa atgtcctttt        120

tttttaaact taaggctaat gtgtagaagc ttttgctaat gagaggacca tttgctaaat        180

cggtataagt gctacacatt tgggtatctc catcccaaca tacctcttat tgccattccc        240

caaagcagac accttctcct ccctccctca aggacctctg agcttgcact ccaattcctc        300

tcccacactc acctttctcc tttctgttcc tcttgggatc caggtttatt tgaggagata        360

ggaaaagctc ctgatccagc aggttttatt cttaaatttg taacaaagta aatcacagaa        420

cctccacccca gcatccaggc ctctggttct ctccctcctt cccaggtata ggccggcttt        480

cagaaaccct gcaccacata gaccctgggc ctgaattgct gtgagtaata atgactctgc        540

tcgtaatttg tgtccttctg cttggaactg tttccttttt agtttggtca ccctcccaga        600

gctggtttca atgggggcat acccattatg ggatgcaggg catcctgcat cctgaggaat        660

ttttttttcct ccaaaaatga aaccttgaaa tgaggacatt gtcctgtcca cggactgcac        720

aacaacactg agcctcaagg actcatactg gcattttct tcttttgcag agtgtgggca        780

ccctggcttc aagctcacga gaaaccaggt cgggatttaa acaatgttgg gttaaagcaa        840

agtttcataa agacagaatc aagaaaaaaa aaaaaaaaaa atatactggc cgcaaggaat        900
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```
<210>    25
<211>    299
<212>    DNA
<213>    Homo sapien

<400>    25
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28

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ggcagcgcgg aggccgcacg atgcctggag ttactgtaaa agacgtgaac cagcaggagt    60

tcgtcagagc tctggcagcc ttcctcaaaa agtccgggga agctgaaagt ccccgaatgg   120

gtgggatacc gttcaagctg gccaaagcac aaaggagctt gctccctacg atgagaactg   180

gttctacacg cggagctgct ttccaacagc ggcgggccac ctgttacctt ccggggggtgg   240

gcgctggggg ttgggcttcc attgaaccca aggattctat tgggggggaa cgttcagaa    299
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<210>   26
<211>   1346
<212>   DNA
<213>   Homo sapien

<400>   26
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gtgaaggaag tacaggtggg taagaaaggg agagccagat cacaagcacc ttgaaaccag   120

acactggttt ggggtcttca gcagtcctct gtcgaaatac atatattcag gggctgggtg   180

tggtggctca cacctgtaat cccagccctt tgggaggcag aggcaggcag attacttgag   240

gtcaagagtt caagacaagc ctggccaaca tggtaaaacc ccgtctctac caaaaatata   300

aaaaactagc cgggcgtggt ggcaggcacc tgattgtaat cccagctact cgggaggctg   360

aggcaggaga atcatttgaa cccagaaggc ggagattgca gtgagctgag atggcgccac   420

tgccactccc agcctgggcg acagagcaag agactcaaaa aagagaccca gaccaggatt   480

acgaatgagg caatttatta acccagcatg gtttgttcta atgcttcttg ttggcagctg   540

ccacctgtcc ggcgattctg tccagatctc tttgtccctg aggtgtcagt ttgcggccgc   600

catcttggtc cttttccacc attttcagcc cctccagggc ttggaggacc cggcgggcca   660

cactcttgga gcctcggctg aagtggctgg gcatgacgcc gtttctctga cgtcccccat   720

agatcttggt catggagcca accccagcgc caccccggag gtacaggtgc cgcgctgtgg   780

aagcagctcg cgtgtagaac cagttctcat cgtagggagc aagctctttg tgcttggcca   840

gcttgacggt atccacccat tcggggactt tcagcttccc ggacttttg aggaaggctg   900

ccagagctct gacgaactcc tgctggttca cgtctttac agtaactcca ggcatcgtgc   960

ggcctccgcg ctgccagcca ggggaaaggg aacgacgggg tttcccgggc gcacaagtcg  1020

ggcgtagggt ctcgcgagag ttccgaaagc tcgcgagagc gagggtagac gctgaggctc  1080

cgcctctctc agggcgaaag ttcgtccccg cctagagggg agggtgtcta gtgaggggtg  1140

gagaggtaaa ggggagggcc aaggggtcgc gcgtggaggc ctgggtttcc tcccgcgttt  1200

ccttctcccg gagtgtaata gagagaggat agagagctcc tgttcggagc tgggggaact  1260

tggcttcgtt tgcgtcgttc gtggctggaa ggaacagtgg tggagaatac tatgatggcg  1320
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aaagtacggg gcaggatggg tgggcc                                       1346


<210>   27
<211>   136
<212>   DNA
<213>   Homo sapien

<220>
<221>   misc_feature
<222>   (75)..(75)
<223>   n=a, c, g, or t


<400>   27
gtcgccgctg cgaagggagc cgccgccatg tctgcgcatc tgcaatggat ggtcgtgcgg    60

aactgctcca gtttnctgat caagaggaat agcccctgc ccccagagca ataaagtcag    120

ctggctttct cacctg                                                   136


<210>   28
<211>   426
<212>   DNA
<213>   Homo sapien

<400>   28
gctcgaggcc atttcctctc tccagaggac ctttcctgcc taggactcat cattgtcccc    60

tccctggcat tttttacacc tggagcagcc agaggacgca tgcatggctc ttcggaagcc    120

ttctcctgcc acggcatgca cccacacatg cgagcctccc gggtactgtc atcctgaatt    180

ctgagaccat ccagcacttc ctttagtttt gccctggtgc tgttgacttt tgtttactga    240

agagtgtgct ggaggcagga caagggacat ggaaggctgc aatttaagag tctaaaaggt    300

tttagaatcc tgaaggaggt ttaacaagct gaattgaaga ataatacctt tctcaactgg    360

agagaattta catgattgca ttattgttaa aattaacatc tcatctatta aaagcatttg    420

tagatt                                                              426


<210>   29
<211>   264
<212>   DNA
<213>   Homo sapien

<400>   29
cgggaaccct gagacctctc cagcgaagct gaagtgctgt gttacgggag agagtgactg    60

gaaagtaaca aagctgaatc tttctccctg gagtaaggcc gaagactgga ttactacacg    120

cctagacgtg acactacacc catagatctc atgcatcatt aatgccatat gacattgcca    180

ttttctttct cagttcacgg acaaaagtgg tgggttttca ttgcttcact gattgtcaat    240

gcattaataa agaagatgtg tggt                                          264
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<210>   30
<211>   265
<212>   DNA
<213>   Homo sapien

<220>
<221>   misc_feature
<222>   (164)..(164)
<223>   n=a, c, g, or t


<220>
<221>   misc_feature
<222>   (168)..(168)
<223>   n=a, c, g, or t


<400>   30
cggccttcct gtaagaaaga tccacggccg ggcccgggcg gccccgcttc ccagagactc      60

atccagccgg aggagatgtg gctctaccgg aaccccctacg tggaggcgga gtatttcccc     120

accaagccga tgtttgtgcg tggagaaaga tcgtctttcc tccntccnca tgacccggct      180

tcccgcgggc acctgtgcgt tttccacccc gagacggcct ttgttattgc atttctctct      240

ccactgtctc tgatcttcct ggcca                                           265


<210>   31
<211>   741
<212>   DNA
<213>   Homo sapien

<220>
<221>   misc_feature
<222>   (718)..(718)
<223>   n=a, c, g, or t


<400>   31
ggcaaccaca ggttccaaga tggtttgcgg gggcttcgcg tgttccagtc tccgagtggt      60

cggcgtggtc attgcagtgg gcatcttctt gttcctgatt gctttagtgg gtctgattgg     120

agctgtaaaa catcatcagg tgttgctatt cttttatatg attattctgt tacttgtatt     180

tattgttcag ttttctgtat cttgcgcttg tttagccctg aaccaggagc aacagggtca     240

gcttctggag gttggttgga acaatacggc aagtgctcga aatgacatcc agagaaatct     300

aaactgctgt gggttccgca gtgttaaccc aaatgacacc tgtctggcta gctgtgttaa     360

aagtgaccac tcgtgctcgc catgtgctcc aatcatagga gaatatgctg gagaggtttt     420

gagatttgtt ggtggcattg gcctgttctt cagtttttaca gagatcctgg gtgtttggct     480

gacctacaga tacaggaacc agaaagaccc ccgcgcgaat cctagtgcat tcctttgatg     540

agaaaacaag gaagatttcc tttcgtatta tgatcttgtt cactttctgt aattttctgt     600
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31

taagctccat ttgccagttt aaggaaggaa acactatctg gaaaagtacc ttattgatag   660

tggaattata tatttaccta gtttctctac agttttcttc cgtgcgaaaa atattganac   720

tgggcctgaa ccggggcacg g   741

<210>   32
<211>   1844
<212>   DNA
<213>   Homo sapien

<400>   32
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agccccgccc tccctcctca cctgctcctg gggaaactac accaaggccg ccgctctggc   120

ctggggctcc ctcccacacg gccttggccc tctccccctc gccccgggac cgctccgccc   180

ctcccggatc ccggtcggcg gagcgcattt atttgcatat ttctaccttt gttccccgcc   240

tgggccaggc cccaaaggca aggacaaagc agctgtcagg gaacctccgc cggagtcgaa   300

tttacgtgca gctgccggca accacaggtt ccaagatggt ttgcgggggc ttcgcgtgtt   360

ccaagaactg cctgtgcgcc ctcaacctgc tttacacctt ggttagtctg ctgctaattg   420

gaattgctgc gtggggcatt ggcttcgggc tgatttccag tctccgagtg gtcggcgtgg   480

tcattgcagt gggcatcttc ttgttcctga ttgctttagt gggtctgatt ggagctgtaa   540

aacatcatca ggtgttgcta ttctttata tgattattct gttacttgta tttattgttc   600

agttttctgt atcttgcgct tgtttagccc tgaaccagga gcaacagggt cagcttctgg   660

aggttggttg gaacaatacg gcaagtgctc gaaatgacat ccagagaaat ctaaactgct   720

gtgggttccg aagtgttaac ccaaatgaca cctgtctggc tagctgtgtt aaaagtgacc   780

actcgtgctc gccatgtgct ccaatcatag gagaatatgc tggagaggtt ttgagatttg   840

ttggtggcat tggcctgttc ttcagtttta cagagatcct gggtgtttgg ctgacctaca   900

gatacaggaa ccagaaagac ccccgcgcaa atcctagtgc attcctttga tgagaaaaca   960

aggaagattt cctttcgtat tatgatcttg ttcactttct gtaattttct gttaagctcc   1020

atttgccagt ttaaggaagg aaacactatc tggaaaagta ccttattgat agtggaatta   1080

tatatttta ctctatgttt ctctacatgt tttttcttt ccgttgctga aaaatatttg   1140

aaacttgtgg tctctgaagc tcggtggcac ctggaattta ctgtattcat tgtcgggcac   1200

tgtccactgt ggcctttctt agcatttta cctgcagaaa aactttgtat ggtaccactg   1260

tgttggttat atggtgaatc tgaacgtaca tctcactggt ataattatat gtagcactgt   1320

gctgtgtaga tagttcctac tggaaaaaga gtggaaattt attaaaatca gaaagtatga   1380

gatcctgtta tgttaaggga aatccaaatt cccattttt tttggtcttt ttaggaaaga   1440

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tgtgttgtgg taaaaagtgt tagtataaaa atgataattt acttgtagtc ttttatgatt    1500

acaccaatgt attctagaaa tagttatgtc ttaggaaatt gtggtttaat ttttgacttt    1560

ttacaggtaa gtgccaagga gaagtggttc ctgaaatgtt ctaatgttta ttaacatttt    1620

aaccttcagc tccatcagaa tggaccgagt tgagtaatca ggaggataac tatatgatct    1680

gaatggtata ctaattggag ctaaagacgc ttttcaccag ttgtttattg gttggccgtg    1740

caaaagattt gttttcaaat gggaaacggg cgaattcgtt ggacgctgtg cagtttgttg    1800

tccctgagaa gatggggggt ttaaaagagg caaaaaaaaa aggg                     1844
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<210> 33
<211> 242
<212> DNA
<213> Homo sapien

<400> 33
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gctctcactg cctgtgagag ccccatcgtg gtggtgctga gtggcaggag gtctcctctg     60

ttcctcacaa atttccggga agccccaatc agagctggtg aaatagttgt ttttaaagtt    120

gaaggacgag acattccaat agttcacaga gtaatcaaag ttcatgaaaa agataatgga    180

gacatcaaat ttctgactaa aggagataat aatgaagttg atgatagagg cttgtacaaa    240

ga                                                                    242
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<210> 34
<211> 966
<212> DNA
<213> Homo sapien

<400> 34
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aaggatcctt aattaaatta atccccccc ccccggcagc cgtctgtgcc acccagagcc     60

ggcgggccgc taggtccccg gagaccctgc tatggtgcgt gcgggcgccg tggggggctca   120

tctccccgcg tccggcttgg atatcttcgg ggacctgaag aagatgaaca agcgccagct    180

ctattaccag gttttaaact tcgccatgat cgtgtcttct gcactcatga tatggaaagg    240

cttgatcgtg ctcacaggca gtgagagccc catcgtggtg gtgctgagtg gcagtatgga    300

gccggccttt cacagaggag acctcctgtt cctcacaaat ttccgggaag acccaatcag    360

agctggtgaa atagttgttt ttaaagttga aggacgagac attccaatag ttcacagagt    420

aatcaaagtt catgaaaaag ataatggaga catcaaattt ctgactaaag gagataataa    480

tgaagttgat gatagaggct gtacaaaga aggccagaac tggctggaaa agaaggacgt    540

ggtgggaaga gcaagagggt ttttaccata tgttggtatg gtcaccataa taatgaatga    600

ctatccaaaa ttcaagtatg ctctttggc tgtaatgggt gcatatgtgt tactaaaacg    660
```

```
tgaatcctaa aatgagaagc agttcctggg accagattga aatgaattct gttgaaaaag   720

agaaaaacta atatatttga gatgttccat tttctgtata aaagggaaca gtgtggaaat   780

tgtccgcggt cttgggccaa gtaatagatt tgccgcgggg aaggaaatgg gagtttgtta   840

taaagatggt gcggcagctt ggaggctgtg ctgttccctt cgagttgggg ccgaataatc   900

gaccatgtgt gcccttcctc gcgtccttct agctatgcgg gcgctatgaa ccgggcggtt   960

gggttt                                                             966
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<210>   35
<211>   717
<212>   DNA
<213>   Homo sapien

<220>
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<222>   (685)..(686)
<223>   n=a, c, g, or t


<220>
<221>   misc_feature
<222>   (688)..(688)
<223>   n=a, c, g, or t


<220>
<221>   misc_feature
<222>   (697)..(697)
<223>   n=a, c, g, or t


<400>   35
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tgttacaggt tctggtcatg caagctctac cccaggtgga gaaaaggaga cttcggctac   120

ccagagaagt tcagtgccca gctctactga gaagaatgct tttaattcct ctctggaaga   180

tcccagcacc gactactacc aagagctgca gagagacatt tctgaaatgg ctgtctgtca   240

gtgccgccga aagaactacg ggcagctgga catctttcca gccccgggat acctaccatc   300

ctatgagcga gtaccccacc taccacaccc atgggcgcta tgtgccccct agcagtaccg   360

atcgtagccc ctatgagaag gtttctgcag gtaatggtgg cagcagcctc tcttacacaa   420

acccagcagt ggcagccact tctgccaact tgtaggggca cgtcgccgc tgagctgagt   480

ggccagccag tgccattcca ctccactcag gttcttcagg gccagagccc ctgcacctgt   540

ttgggctggt gagctgggag ttcaggtggg ctgctcacag cctccttcag aggccccacc   600

aatttctcgg acacttctca gtgtgtggaa gctcatgtgg gcccctgagg gctcatgcct   660

gggaagtgtt gtggtgggtg ctacnnanga ggactgnccc agagagccct gagatag      717
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34

```
<210>  36
<211>  774
<212>  DNA
<213>  Homo sapien

<400>  36
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ccagagaagt  tcagtgccca  gctctactga  gaagaatgct  tttaattcct  ctctggaaga     180

tcccagcacc  gactactacc  aagagctgca  gagagacatt  tctgaaatgg  ctgtctgtca     240

gtgccgccga  aagaactacg  ggcagctgga  catctttcca  gccccgggat  acctaccatc     300

ctatgagcga  gtaccccacc  taccacaccc  atgggcgcta  tgtgccccct  agcagtaccg     360

atcgtagccc  ctatgagaag  gtttctgcag  gtaatggtgg  cagcagcctc  tcttacacaa     420

acccagcagt  ggcagccact  tctgccaact  tgtaggggca  cgtcgcccgc  tgagctgagt     480

ggccagccag  tgccattcca  ctccactcag  gttcttcagg  gccagagccc  ctgcaccctg     540

tttgggctgg  tgagctggga  gttcaggtgg  gctgctcaca  gcctccttca  gaggccccac     600

caatttctcg  gacacttctc  agtgtgtgga  agctcatgtg  ggccctgag   ggctcatgcc     660

tgggaagtgt  tgtggtgggt  gctcccagga  ggactggccc  agagagccct  gagatagcgg     720

ggatcctgaa  ctggactgaa  taaaacgtgg  tctcccctg   cgccaaaaaa  aaaa           774


<210>  37
<211>  4144
<212>  DNA
<213>  Homo sapien

<400>  37
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agtgcttaca  gttgttacag  gttctggtca  tgcaagctct  accccaggtg  gagaaaagga     180

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38

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42

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<212> DNA
<213> Homo sapien

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<223> n=a, c, g, or t

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<222> (1733)..(1733)
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<211> 1530
<212> DNA
<213> Homo sapien

<400> 45
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caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac    240

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<210>   46
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<212>   DNA
<213>   Homo sapien

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accgagaaag gctggcatag ggggaggttt cccaggtaga agaagaagtg tcagcagacc   180

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46

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gagagacatt tctgaaatgt ttttgcagat ttataaacaa gggggttttc tgggcctctc   1140

caatattaag ttcaggccag gatctgtggt ggtacaattg actctggcct ccgagaagg    1200

taccatcaat gtccacgacg tggagacaca gttcaatcag tataaaacgg aagcagcctc   1260

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<211>   1882
<212>   DNA
<213>   Homo sapien

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caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac    240
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gaatgctgtg agtatgacca gcagcgtact ctccagccac agccccggtt caggctcctc      360

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cgcccccccca gcccatggtg tcacctcggc cccggacaac aggcccgcct tgggctccac      660

cgcccctcca gtccacaatg tcacctcggc ctcaggctct gcatcaggct cagcttctac      720

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ggctcccagg aggactggcc cagagagccc tgagatagcg gggatcctga actggactga     1860

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<210>   49
<211>   1930
<212>   DNA
<213>   Homo sapien
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48

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gctcatgtgg gccctgagg gctcatgcct gggaagtgtt gtggtggggg ctcccaggag   1860

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<210> 50
<211> 1798
<212> DNA
<213> Homo sapien

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ccctgagggc tcatgcctgg gaagtgttgt ggtgggggct cccaggagga ctggcccaga    1740

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<210> 51
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51

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52

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<213> Homo sapien

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53

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54

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57

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58

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accgatcgta gcccctatga gaaggtttct gcaggtaatg gtggcagcag cctctcttac    1260

acaaacccag cagtggcagc cacttctgcc aacttgtagg ggcacgtcgc ccgctgagct    1320

gagtggccag ccagtgccat tccactccac tcaggttctt cagggccaga gccctgcac     1380
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59

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cctgtttggg ctggtgagct gggagttcag gtgggctgct cacagcctcc ttcagaggcc    1440

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tgcctgggaa gtgttgtggt gggggctccc aggaggactg gcccagagag ccctgagata    1560

gcggggatcc tgaactggac tgaataaaac gtggtctccc actgc                    1605
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<211>  1874
<212>  DNA
<213>  Homo sapien
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caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac   240

agctaccaca gcccctaaac ccgcaacagt tgttacaggt tctggtcatg caagctctac   300

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gaagaatgct gtgagtatga ccagcagcgt actctccagc cacagccccg gttcaggctc   420

ctccaccact cagggacagg atgtcactct ggccccggcc acggaaccag cttcaggttc   480

agctgccacc tggggacagg atgtcacctc ggtcccagtc accaggccag ccctgggctc   540

caccaccccg ccagcccacg atgtcacctc agccccggac aacaagccag ccccgggctc   600

caccgccccc ccagcccacg gtgtcacctc ggccccggac accaggccgg ccccgggctc   660

caccgccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc   720

caccgcccct ccagtccaca atgtcacctc ggcctcaggc tctgcatcag gctcagcttc   780

tactctggtg cacaacggca cctctgccag ggctaccaca accccagcca gcaagagcac   840

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cagcacttct ccccagttgt ctactggggt ctctttcttt ttcctgtctt ttcacatttc   1020

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gagagacatt tctgaaatgt ttttgcagat ttataaacaa gggggttttc tgggcctctc   1140

caatattaag ttcaggccag gatctgtggt ggtacaattg actctggcct tccgagaagg   1200

taccatcaat gtccacgacg tggagacaca gttcaatcag tataaaacgg aagcagcctc   1260

tcgatataac ctgacgatct cagacgtcag cgtgagtgat gtgccatttc ctttctctgc   1320

ccagtctggg gctggggtgc caggctgggg catcgcgctg ctggtgctgg tctgtgttct   1380
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60

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cacctaccac acccatgggc gctatgtgcc ccctagcagt accgatcgta gccctatga      1560

gaaggtgaga ttgggcccca caggccaggg gaagcagagg gtttggctgg gcaaggattc     1620

tgaagggggt acttggaaaa cccaaagagc ttggaagagg tgagaagtgg cgtgaagtga     1680

gcagggagg gcctggcaag gatgaggggc agaggtcaga ggagttttgg gggacaggcc      1740

tgggaggaga ctatggaaga aaggggccct caagagggag tggcccccact gccagaattc    1800

ctaaaagatc attggccgtc cacattcatg ctggctggcg ctggctgaac tggtgccacc     1860

gtggcagttt tgtt                                                       1874
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<210>    60
<211>    1634
<212>    DNA
<213>    Homo sapien
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ctctcaagca gccagcgcct gcctgaatct gttctgcccc ctccccaccc atttcaccac      180

caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac      240

agctaccaca gcccctaaac ccgcaacagt tgttacaggt tctggtcatg caagctctac      300

cccaggtgga gaaaaggaga cttcggctac ccagagaagt tcagtgccca gctctactga     360

gaagaatgct gtgagtatga ccagcagcgt actctccagc cacagccccg gttcaggctc     420

ctccaccact cagggacagg atgtcactct ggccccggcc acggaaccag cttcaggttc     480

agctgccacc tggggacagg atgtcacctc ggtcccagtc accaggccag ccctgggctc     540

caccaccccg ccagcccacg atgtcacctc agccccggac aacaagccag ccccgggctc     600

caccgccccc ccagcccacg gtgtcacctc ggccccggac accaggccgg ccccgggctc     660

caccgccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc     720

caccgccct ccagtccaca atgtcacctc ggcctcaggc tctgcatcag gctcagcttc     780

tactctggtg cacaacggca cctctgccag ggctaccaca accccagcca gcaagagcac      840

tccattctca attcccagcc accactctga tactcctacc acccttgcca gccatagcac      900

caagactgat gccagtagca ctcaccatag cacggtacct cctctcacct cctccaatca      960

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aaacctccag tttaattcct ctctggaaga tcccagcacc gactactacc aagagctgca    1080
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taccatcaat gtccacgacg tggagacaca gttcaatcag tataaacgg aagcagcctc    1260

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ccagtctggg gctggggtgc caggctgggg catcgcgctg ctggtgctgg tctgtgttct   1380

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gaaaggcaag gagg                                                    1634
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<210> 61
<211> 943
<212> DNA
<213> Homo sapien

<400> 61
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ctctcaagca gccagcgcct gcctgaatct gttctgcccc ctccccaccc atttcaccac    180

caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac    240

agttgttaca ggttctggtc atgcaagctc taccccaggt ggagaaaagg agacttcggc    300

tacccagaga agttcagtgc ccagctctac tgagaagaat gctttaatt cctctctgga    360

agatcccagc accgactact accaagagct gcagagagac atttctgaaa tggctgtctg    420

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tcctatgagc gagtacccca cctaccacac ccatgggcgc tatgtgcccc ctagcagtac    540

cgatcgtagc ccctatgaga aggtttctgc aggtaatggt ggcagcagcc tctcttacac    600

aaacccagca gtggcagcca cttctgccaa cttgtagggg cacgtcgccc gctgagctga    660

gtggccagcc agtgccattc cactccactc aggttcttca gggccagagc ccctgcaccc    720

tgtttgggct ggtgagctgg gagttcaggt gggctgctca cagcctcctt cagaggcccc    780

accaatttct cggacacttc tcagtgtgtg gaagctcatg tgggcccctg agggctcatg    840

cctgggaagt gttgtggtgg gggctcccag gaggactggc ccagagagcc ctgagatagc   900

ggggatcctg aactggactg aataaaacgt ggtctcccac tgc                    943
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<210> 62

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<212>  DNA
<213>  Homo sapien

<400>  62
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ctctcaagca gccagcgcct gcctgaatct gttctgcccc ctccccaccc atttcaccac     180

caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac     240

agttgttaca ggttctggtc atgcaagctc taccccaggt ggagaaaagg agacttcggc     300

tacccagaga agttcagtgc ccagctctac tgagaagaat gctttgtcta ctggggtctc     360

tttctttttc ctgtcttttc acatttcaaa cctccagttt aattcctctc tggaagatcc     420

cagcaccgac tactaccaag agctgcagag agacatttct gaaatggctg tctgtcagtg     480

ccgccgaaag aactacgggc agctggacat ctttccagcc cgggatacct accatcctat     540

gagcgagtac cccacctacc acacccatgg gcgctatgtg cccctagca gtaccgatcg     600

tagcccctat gagaaggttt ctgcaggtaa tggtggcagc agcctctctt acacaaaccc     660

agcagtggca gccacttctg ccaacttgta ggggcacgtc gcccgctgag ctgagtggcc     720

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cctgaactgg actgaataaa cgtggtctc ccactgc                              997


<210>  63
<211>  548
<212>  DNA
<213>  Homo sapien

<400>  63
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tcatgtgggc ccctgagggc tcatgcctgg gaagtgttgt ggtgggggct cccaggagga     480
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63

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ctggcccaga gagccctgag atagcggggа tcctgaactg gactgaataa aacgtggtct      540

cccactgc                                                              548
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<210>   64
<211>   1378
<212>   DNA
<213>   Homo sapien

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ctctcaagca gccagcgcct gcctgaatct gttctgcccc ctccccaccc atttcaccac      180

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caccaccccg ccagcccacg atgtcacctc agccccggac aacaagccag ccccgggctc      600

caccgccccc ccagcccacg gtgtcacctc ggccccggac accaggccgg ccccgggctc      660

caccgccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc      720

caccgccccct ccagtccaca atgtcacctc ggcctcaggc tctgcatcag gctcagcttc      780

tactctggtg cacaacggca cctctgccag ggctaccaca accccagcca gcaagagcac      840

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cagcacttct ccccagttgt ctactggggt ctctttcttt ttcctgtctt ttcacatttc      1020

aaacctccag tttaattcct ctctggaaga tcccagcacc gactactacc aagagctgca      1080

gagagacatt tctgaaatgt ttttgcagat ttataaacaa gggggttttc tgggcctctc      1140

caatattaag ttcaggccag gatctgtggt ggtacaattg actctggcct ccgagaagg      1200

taccatcaat gtccacgacg tggagacaca gttcaatcag tataaaacgg aagcagcctc      1260

tcgatataac ctgacgatct cagacgtcag cgctgaagta ccatttcaca tcatgctgac      1320

caatatgggc ccatggagta ccacaacgtc ggggcaatcc gatttcggca caactact      1378
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<210>   65
<211>   162
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64

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<212>  DNA
<213>  Homo sapien

<400>  65
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ctgggaagtg ttgtggtggg ggctcccagg aggactggcc cagagagccc tgagatagcg       120

gggatcctga actggactga ataaaacgtg gtctcccact gc                          162


<210>  66
<211>  1285
<212>  DNA
<213>  Homo sapien

<400>  66
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cccaggtgga gaaaaggaga cttcggctac ccagagaagt tcagtgccca gctctactga       360

gaagaatgct tttaattcct ctctggaaga tcccagcacc gactactacc aagagctgca       420

gagagacatt tctgaaatgt ttttgcagat ttataaacaa gggggttttc tgggcctctc       480

caatattaag ttcaggccag gatctgtggt ggtacaattg actctggcct tccgagaagg       540

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tcgatataac ctgacgatct cagacgtcag cgtgagtgat gtgccatttc ctttctctgc       660

ccagtctggg gctggggtgc caggctgggg catcgcgctg ctggtgctgg tctgtgttct       720

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gaaggtttct gcaggtaatg gtggcagcag cctctcttac acaaacccag cagtggcagc       960

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gggggctccc aggaggactg gcccagagag ccctgagata gcggggatcc tgaactggac      1260

tgaataaaac gtggtctccc actgc                                           1285
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<210>  67
<211>  1517
<212>  DNA
<213>  Homo sapien

<400>  67
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caggaggact ggcccagaga gccctgagat agcggggatc ctgaactgga ctgaataaaa    1200

cgtggtctcc cactgcaaaa aaaaagaag actgagaagc ggtcgtaaaa ggagcgcacg    1260

cagaggcggc tggagggcga tgacactagt gcgaactaga dacgggagag agagtgggca    1320

cgagccgata gataggtgtg gtggtgcgga gtcgctgtgc gggcgatggg cgggcacggg    1380

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cagtcgactg gggcgactca cacgaacgta catgtacacg tgtacacgca agctacgtgt    1500

gtgagcggca gagattg                                                   1517
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<210>  68
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<211> 524
<212> DNA
<213> Homo sapien

<400> 68
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ttggaagagg tgagaagtgg cgtgaagtga gcagggagg gcctggcaag gatgaggggc   360

agaggtcaga ggagttttgg gggacaggcc tgggaggaga ctatggaaga aaggggccct   420

caagagggag tggccccact gccagaattc ctaaaagatc attggccgtc cacattcatg   480

ctggctggcg ctggctgaac tggtgccacc gtggcagttt tgtt   524

<210> 69
<211> 1949
<212> DNA
<213> Homo sapien

<400> 69
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ccaaggccta tgggcagaga gaaggaggct gctgcaggga aggaggcggc caacccaggg   120

gttactgagg ctgcccactc cccagtcctc ctggtattat ttctctggtg gccagagctt   180

atattttctt cttgctctta tttttccttc ataaagaccc aaccctatga ctttaacttc   240

ttacagctac cacagcccct aaacccgcaa cagttgttac aggttctggt catgcaagct   300

ctaccccagg tggagaaaag gagacttcgg ctacccagag aagttcagtg cccagctcta   360

ctgagaagaa tgctgtgagt atgaccagca gcgtactctc cagccacagc cccggttcag   420

gctcctccac cactcaggga caggatgtca ctctggcccc ggccacggaa ccagcttcag   480

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gcactccatt ctcaattccc agccaccact ctgatactcc taccaccctt gccagccata   900

gcaccaagac tgatgccagt agcactcacc atagcacggt acctcctctc acctcctcca   960

67

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<213>   Homo sapien

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68

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tgc                                                                1803


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<213>  Homo sapien

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caccgcccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc      720
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<213>   Homo sapien

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caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac    240
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71

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agctaccaca gcccctaaac ccgcaacagt tgttacaggt tctggtcatg caagctctac      300

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tcagtataaa acggaagcag cctctcgata taacctgacg atctcagacg tcagcgtgag      540
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<212>   DNA
<213>   Homo sapien
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74

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caccgccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc   720

caccgccccct ccagtccaca atgtcacctc ggcctcaggc tctgcatcag gctcagcttc   780

tactctggtg cacaacggca cctctgccag ggctaccaca accccagcca gcaagagcac   840
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75

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tccattctca attcccagcc accactctga tactcctacc acccttgcca gccatagcac   900

caagactgat gccagtagca ctcaccatag cacggtacct cctctcacct cctccaatca   960

cagcacttct ccccagttgt ctactggggt ctctttcttt ttcctgtctt ttcacatttc  1020

aaacctccag tttaattcct ctctggaaga tcccagcacc gactactacc aagagctgca  1080

gagagacatt tctgaaatgt ttttgcagat ttataaacaa gggggttttc tgggcctctc  1140

caatattaag ttcagtgagt gatgtgccat ttcctttctc tgcccagtct ggggctgggg  1200

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tcatgtgggc ccctgagggc tcatgcctgg gaagtgttgt ggtgggggct cccaggagga  1740

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<213>    Homo sapien

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caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac   240

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gaagaatgct gtgagtatga ccagcagcgt actctccagc cacagccccg gttcaggctc   420

ctccaccact cagggacagg atgtcactct ggccccggcc acggaaccag cttcaggttc   480

agctgccacc tggggacagg atgtcacctc ggtcccagtc accaggccag ccctgggctc   540

caccaccccg ccagcccacg atgtcacctc agccccggac aacaagccag ccccgggctc   600
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caccgccccc ccagcccacg gtgtcacctc ggccccggac accaggccgg ccccgggctc    660

caccgccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc    720

caccgcccct ccagtccaca atgtcacctc ggcctcaggc tctgcatcag gctcagcttc    780

tactctggtg cacaacggca cctctgccag ggctaccaca accccagcca gcaagagcac    840

tccattctca attcccagcc accactctga tactcctacc acccttgcca gccatagcac    900

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gagagacatt tctgaaatgt ttttgcagat ttataaacaa gggggttttc tgggcctctc   1140

caatattaag ttcaggccag gatctgtggt ggtacaattg actctggcct ccgagaagg    1200

taccatcaat gtccacgacg tggagacaca gttcaatcag tataaacgg aagcagcctc    1260

tcgatataac ctgacgatct cagacgtcag cggctgtctg tcagtgccgc cgaaagaact   1320

acgggcagct ggacatcttt ccagcccggg atacctacca tcctatgagc gagtacccca   1380

cctaccacac ccatgggcgc tatgtgcccc ctagcagtac cgatcgtagc ccctatgaga   1440

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<211>   1630
<212>   DNA
<213>   Homo sapien

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ctctcaagca gccagcgcct gcctgaatct gttctgcccc ctccccaccc atttcaccac    180

caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac    240

agctaccaca gcccctaaac ccgcaacagt tgttacaggt tctggtcatg caagctctac    300

cccaggtgga gaaaaggaga cttcggctac ccagagaagt tcagtgccca gctctactga    360
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77

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gaagaatgct gtgagtatga ccagcagcgt actctccagc cacagccccg gttcaggctc       420

ctccaccact cagggacagg atgtcactct ggccccggcc acggaaccag cttcaggttc       480

agctgccacc tggggacagg atgtcacctc ggtcccagtc accaggccag ccctgggctc       540

caccaccccg ccagcccacg atgtcacctc agccccggac aacaagccag ccccgggctc       600

caccgccccc ccagcccacg gtgtcacctc ggccccggac accaggccgg ccccgggctc       660

caccgccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc       720

caccgcccct ccagtccaca atgtcacctc ggcctcaggc tctgcatcag gctcagcttc       780

tactctggtg cacaacggca cctctgccag ggctaccaca accccagcca gcaagagcac       840

tccattctca attcccagcc accactctga tactcctacc acccttgcca gccatagcac       900

caagactgat gccagtagca ctcaccatag cacggtacct cctctcacct cctccaatca       960

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aaacctccag tttaattcct ctctggaaga tcccagcacc gactactacc aagagctgca      1080

gagagacatt tctgaaatgg ctgtctgtca gtgccgccga aagaactacg ggcagctgga      1140

catctttcca gcccgggata cctaccatcc tatgagcgag taccccacct accacaccca      1200

tgggcgctat gtgcccccta gcagtaccga tcgtagcccc tatgagaagg tttctgcagg      1260

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gtaggggcac gtcgcccgct gagctgagtg gccagccagt gccattccac tccactcagg      1380

ttcttcaggg ccagagcccc tgcaccctgt ttgggctggt gagctgggag ttcaggtggg      1440

ctgctcacag cctccttcag aggcccccacc aatttctcgg acacttctca gtgtgtggaa      1500

gctcatgtgg gcccctgagg gctcatgcct gggaagtgtt gtggtggggg ctcccaggag      1560

gactggccca gagagccctg agatagcggg gatcctgaac tggactgaat aaaacgtggt      1620

ctcccactgc                                                            1630
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<211>  640
<212>  DNA
<213>  Homo sapien

<400>  80
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gctggtctgt gttctggttg cgctggccat tgtctatctc attgccttgg ctgtctgtca       120

gtgccgccga aagaactacg ggcagctgga catctttcca gcccgggata cctaccatcc       180

tatgagcgag taccccacct accacaccca tgggcgctat gtgcccccta gcagtaccga       240

tcgtagcccc tatgagaagg tttctgcagg taatggtggc agcagcctct cttacacaaa       300
```

78

```
cccagcagtg gcagccactt ctgccaactt gtaggggcac gtcgcccgct gagctgagtg        360

gccagccagt gccattccac tccactcagg ttcttcaggg ccagagcccc tgcaccctgt        420

ttgggctggt gagctgggag ttcaggtggg ctgctcacag cctccttcag aggccccacc        480

aatttctcgg acacttctca gtgtgtggaa gctcatgtgg ggccctgagg gctcatgcct        540

gggaagtgtt gtggtggggg ctcccaggag gactggccca gagagccctg agatagcggg        600

gatcctgaac tggactgaat aaaacgtggt ctcccactgc                              640
```

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<211>   874
<212>   DNA
<213>   Homo sapien

<400>   81
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ctctcaagca gccagcgcct gcctgaatct gttctgcccc ctccccaccc atttcaccac        180

caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac        240

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cgagtacccc acctaccaca cccatgggcg ctatgtgccc cctagcagta ccgatcgtag        480

cccctatgag aaggtttctg caggtaatgg tggcagcagc ctctcttaca caaacccagc        540

agtggcagcc acttctgcca acttgtaggg gcacgtcgcc cgctgagctg agtggccagc        600

cagtgccatt ccactccact caggttcttc agggccagag cccctgcacc ctgtttgggc        660

tggtgagctg ggagttcagg tgggctgctc acagcctcct tcagaggccc caccaatttc        720

tcggacactt ctcagtgtgt ggaagctcat gtgggcccct gagggctcat gcctgggaag        780

tgttgtggtg ggggctccca ggaggactgg cccagagagc cctgagatag cggggatcct        840

gaactggact gaataaaacg tggtctccca ctgc                                    874
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<210>   82
<211>   1084
<212>   DNA
<213>   Homo sapien

<400>   82
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ccgaggagtc ccaggggtga gcctctgtgc ccctaatcat ctcctaggaa tggagggtag        120
```

79

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accgagaaag gctggcatag ggggaggttt cccaggtaga agaagaagtg tcagcagacc    180

aggtgagcgt gggtgccagt ggggttcttg ggagcttcaa ggaagcaagg aacgctccct    240

ccttcctctc ctggtctttc tctatgggac ctagtaaata attactgcag ccacctgagg    300

ctggaaaacc actccaggtg ggggaggaga gagtttagtt ttcttgctcc tattttcctc    360

ctcctggaga cctccctctc tcggctttac aaagacacag atacaccccg ccccccaaac    420

acacacacac acacacacac acacctcctt aggctggaac agcagagaat ggagggacaa    480

ggggctgat tagagccaag aagagggagt gaaggagagc agagggagga gggcagccct    540

gtttacagtc acctggctgg tggggtggca ggtgctctct ctgaattaac cctttgagag    600

ctggccagga ctctggactg attaccccag cctggggtgg catccagggg ctctaggagg    660

tacctttgc tcctcaccct ggatctcttt tccttccacc caggtttctg caggtaatgg    720

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ctgc                                                                 1084
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<210> 83
<211> 1194
<212> DNA
<213> Homo sapien

<400> 83
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ctctcaagca gccagcgcct gcctgaatct gttctgcccc ctccccaccc atttcaccac    180

caccatgaca ccgggcaccc agtctccttt cttcctgctg ctgctcctca cagtgcttac    240

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gaagaatgct gtgagtatga ccagcagcgt actctccagc cacagccccg gttcaggctc    420

ctccaccact cagggacagg atgtcactct ggccccggcc acggaaccag cttcaggttc    480

agctgccacc tggggacagg atgtcacctc ggtcccagtc accaggccag ccctgggctc    540

caccaccccg ccagcccacg atgtcacctc agccccggac aacaagccag ccccgggctc    600
```

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caccgccccc ccagcccacg gtgtcacctc ggccccggac accaggccgg ccccgggctc    660

caccgccccc ccagcccatg gtgtcacctc ggccccggac aacaggcccg ccttgggctc    720

caccgcccct ccagtccaca atgtcacctc ggcctcaggc tctgcatcag gctcagcttc    780

tactctggtg cacaacggca cctctgccag ggctaccaca accccagcca gcaagagcac    840

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cagcacttct ccccagttgt ctactggggt ctctttcttt ttcctgtctt ttcacatttc    1020

aaacctccag tttaattcct ctctggaaga tcccagcacc gactactacc aagagctgca    1080

gagagacatt tctgaaatgt ttttgcagat ttataaacaa gggggttttc tgggcctctc    1140

caatattaag ttcagccagg agctgtggtg gcagaataag cgatcctcta atca          1194
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<210>   84
<211>   2623
<212>   DNA
<213>   Homo sapien

<400>   84
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ggttcctaga cggagccaga cttcggaacg ggtgtcctgc tactcctgct ggggctcctc    180

caggacaagg gcacacaact ggttccgtta agcccctctc tcgctcagac gccatggagc    240

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cccctcctgg gactccccgg ccccctgata cccctctgcc tgaggaggta aagaggtccc    360

agcctctcct catcccaacc accggcagga aacttcgaga ggaggagagg cgtgccacct    420

ccctcccctc tatccccaac cccttccctg agctctgcag tcctccctca cagagcccaa    480

ttctcggggg cccctccagt gcaaggggggc tgctcccccg cgatgccagc cgcccccatg    540

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agggcacctc taaggatccg aggcacctgc agtacgtggc agatgtgaac gagtccaacg    1080

tgtacgtggt gacgcagggc cgcaagctct acgggatgcc cactgacttc ggtttctgtg    1140

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agcagagccg cacctgctgg ctggctgcct tccgcctctt caagtacggg gtgcagctgt    1260

acaagaatta ccagcaggca cagtctcgcc atctgcatcc atcttgtttg ggctccccac    1320

ccttgagaag tgcctcagat aataccctgg tggccatgga cttctctggc catgctgggc    1380

gtgtcattga gaacccccgg gaggctctga gtgtggccct ggaggaggcc caggcctgga    1440

ggaagaagac aaaccaccgc ctcagcctgc ccatgccagc ctccggcacg agcctcagtg    1500

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agaggccagt tgatctgctc tgttttatac tagtgacaat aaagattatt ttttgataaa    2220

aaactcagaa ctatctcgtc gcgagtttga taaaaagtgt aaaaaaactg gggggaactt    2280

catagggggt caaacatctc gctgccggcg gataggactt ggctaaactt cttccgagcg    2340

ggccccgtaa gggtggtatg ctgataaaaa tgggggggg cccccctctc aggggcccct     2400

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caccacgctt ttgtttttccc gggtggggaa cccacccctg gtgtgtgtgc ccccccgtt    2580

tattttgggc gcccttttg tggggggaaa ttccccgct ttt                        2623
```

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<210>   85
<211>   1036
<212>   DNA
<213>   Homo sapien

<400>   85
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82

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ccaattttcg tctccctccc ccagccaagg tctcccaggg gtgcagggag agcggagctg     180

ctcagagctt ggccaggttc taagtgtgct cctgaaagca ggtcacccct gagatcctca     240

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tgccttgtgt gtggtgggcc tggggctggc gccgcagtct ctgaacctgt gtgacgcctg     480

cagggctggg acctgacggt gaagatgctg gcgggcaacg aattccaggt gtccctgagc     540

agctccatgt cggtgtcaga gctgaaggcg cagatcaccc agaagatcgg cgtgcacgcc     600

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acgcagaccg tggcccacct gaagcagcaa gtgagcgggc tggagggtgt gcaggacgac     840

ctgttctggc tgaccttcga ggggaagccc ctggaggacc agctcccgct gggggagtac     900

ggcctcaagc ccctgagcac cgtgttcatg aatctgcgcc tgcggggagg cggcacagag     960

cctggcgggc ggagctaagg gccccaccag catccgagca ggatcaaggg ccggaaataa    1020

aggctgttgt aaagag                                                    1036
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<210>   86
<211>   753
<212>   DNA
<213>   Homo sapien

<220>
<221>   misc_feature
<222>   (168)..(208)
<223>   n=a, c, g, or t

<400>   86
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agttacataa aaaaaaaatt tccccaagtt attttctggc gaagagcttc cctggtatga     120

cctgaaactc aaacttggaa aagagataaa tttaattgga taaaaatnnn nnnnnnnnnn     180

nnnnnnnnnn nnnnnnnnnn nnnnnnnntc tcctgaatct tttatctatg ccttaagcct     240

tttctgttcc cttcaggacc taggcttttg aaacccaaaa gccaggaaaa catgcctttg     300

ttatctgctt tctgcaatca cgtctcttcc atggggcact gagcagagaa tggtgtggcc     360
```

83

aagtgagtag tgagaagcag tgaggaggtg tgagctaggt gtctgttccc attttagaaa   420

atactgttcc tacatcagaa ataccacatt aagacgtata gagccaggtc actgggatgc   480

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tctataggtg ctggtatata agtattatcg acatcattta agtaatgatt tagaagttac   180

ataaaaaaaa aatttcccca agttattttc tggcgaagag cttccctggt atgacctgaa   240

actcaaactt ggaaaagaga taaatttaat tggataaaaa tnnnnnnnnn nnnnnnnnnn   300

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ccaaatagct gggattctgg acagagtcag cagagtacag aaggctctga agtgggagac   660

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catttgaact aggattagct gagttgccat gatgctaaga taatgggaga gtgttctttg   780

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<212>   DNA

84

<213>   Homo sapien

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aagtgataga attttttgtct agaatcccaa actggcaacg atagtctcca agggacctgg   180

ccttgccaag ggcctggggc aaggtgtcgg cgggacggtg aggaaggggg aggcagcaag   240

agtcactttg ggggaccaat attcttagat atttagagca tcaccttgtt tttatatgca   300

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cgagatggag aaggggaagg aaggggcttt gggatctgga aaccagcagg ccaggcagca   480

tccacagtgt tagtccaaag ggtcggaccg tgtcgtcagc ctagcgtttg gtcagtgacg   540

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ggtgggtaca agctcctttg tgctttgcac aaacctgaat cccccaccag agaggatgtg   960

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<213>   Homo sapien

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ttcaggaaaa ggctggtaga ggcttcggct gctgtctgga cgtctggacc ctgccatgtg   180

gattataaac ccaaagtgta cagccctagg cgggaggggg tggcgcttct cagccggctg   240

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gcagttttat aactaactac gtccacttat atatattcac actctacata tatatatata   780

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acaaacctga atcccccacc agagaggatg tgtgtgagga gccagaaacg ctgaatccaa  1800

ttaagagaga aaaataataa taacaataaa tgatcttgga caagaaaaaa aaaa         1854
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gttaaatggc cctgaaaaga gcctttggag acaaagcagc cggcgacccg cggagggagg   180

gagggaggga gcgagcgagc gccaggtccc ggcagggact cacttggagc tggcgtactt   240

ggtgaccgcc ttggtgccct cggacacggc gtgcttggcc agctcgccgg gcagcagcag   300
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gccagaccca agaccgacac cgaccccga gaacgcaagc agagcggtag gctcggggtc      660

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gccaggcagg agtttctctc ggtgactact atcgctgtca tgtctggtcg tggcaagcaa     960

ggaggcaagg cccgcgccaa ggccaagtcg cgctcgtccc gcgctggcct tcagttcccg    1020

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<212> DNA
<213> Homo sapien

<400> 91
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agaacaagcc ggtgtgtttt atggagaggc tgtttaatct ccactgtgag acagtaaata    180

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ccatctggtg tggataacaa gcccacaaat gagcagtcag cttttttgtgc cctttagggc   1140

ctgggacaac cacgggatct aaaaggggct ggaactagag gtcttgagct cctgttccta   1200

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<213>    Homo sapien

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cagccatctt gggcagtggc tgttggtttc ccagtctctc aagaccagga acgagaaaaa     180

agaagtgtaa gttacctttt ctcttttta catatcagtg acagcgatga attagcttca      240

gggttttttg tgttcccttta cccatatcca tttcgcccac ttccaccaat tccatttcca     300

agatttccat ggtttagacg taattttcct attccaatac ctgaatctgc ccctacaact     360

cccttcctta gcgaaaagta aacaagaagg aaaagtcacg ataaacctgg tcacctgaaa     420

ttgaaattga gccacttcct tgaagaatca aaattcctgt taataaaaga aaaacaaatg     480
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88

taattgaaat agcacacagc attctctagt caatatcttt agtgatcttc tttaataaac　　540

atgaaagcaa atcactaaag atattgacta gagaatgctg tgtgctattt caatatcttt　　600

agtgatcttc tttaataaac atgaaagcat aaaaaaaaaa agacgaaaaa aaaaggctgg　　660

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ccgcacaaga　　730

<210>　93
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<213>　Homo sapien

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tgagatatat aggaaacatc aaaaggtgat aaaatttccc tagaatctcc actatctcaa　　180

agatgaagaa agttctcctc ctgatcacag ccatcttggc agtggctgtt ggtttcccag　　240

tctctcaaga ccaggaacga gaaaaaagaa gtgtaagtta ccttttctct tttttacata　　300

tcagtgacag cgatgaatta gcttcagggt ttttgtgtt cccttaccca tatccatttc　　360

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gtcacgataa acctggtcac ctgaaattga aattgagcca cttccttgaa gaatcaaaat　　540

tcctgttaat aaaagaaaaa caaatgtaat tgaaatagca cacagcattc tctagtcaat　　600

atctttagtg atcttcttta ataaacatga aagaagatca ctaaagatat tgactagaga　　660

atgctgtgtg ctatttcaat tacatttgtt tttctttaat aaacatgaat tttgattctt　　720

caaggaagtg gctcaatttc aatttcaggt gacctgaaat aaataacaga catatggtta　　780

ttaattgcaa tgggtcattt tcttggaaac atatacattt tctgcatttt aatgacaact　　840

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gaaagcaaag gtctttagtg gtaagtagta gctgaaatat ttttttccta gaacagtcct　　960

ctgggttcta atttaatctt agataagatt aaattatata tattaaatta taaattatta　　1020

tagtagatta gatctatagt ctatagtata gattatattt cctcaatta tctagtaatt　　1080

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<210>　94
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<213>   Homo sapien

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gtgtgaggtg cagctgttgg agtctggggg aggcttggta cagcctgggg ggtccctgag     180

actctcctgt gcagcctctg gattcacctt tagcatctat gccatgagct gggtccgcca     240

ggctccaggg aaggggctgg agtgggtcgc aagtatcagt ttcagtggtg gtagtacata     300

ctacgcagac tccgtgaagg gccgtttcac catctccaga gacaattcca agaccacgat     360

gcatctccac atgaacagcc tgagaaccga cgacacggcc gtctactact gtgcgaaacc     420

gtttccgtat tttgactact ggggccaggg aaccctggtc accgtctcga gtggcgatgg     480

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aaggaaaaca aaaaacaaa aaaaaaaaa acacgcgggc ggacacccgg ggacaacggg    1440

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<210>   95
<211>   177
<212>   PRT
<213>   Homo sapien

<400>   95

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1   5   10   .   15

Pro Ser Pro Pro Gly Leu Leu Ala Pro Ala Pro Ala Pro Cys Ala Pro
              20   25   30

Gly Gly His Arg Arg Ala Pro Gly Pro Arg Arg Val Arg Glu Thr Pro
-            35   40   45

Arg Thr Gly Gly Gly Ile Gly Pro Pro Ser Phe Gly Gly Gly Lys Gly
      50   55   60   .

Gly Trp Lys Glu Glu Gly Ser Gly Val Gly Glu Ser Trp Ser Phe Gly
65   70   75   80

Ile Phe Ser Pro Gly Gln Ala Val Leu Arg Ala Leu Arg Cys Val Ser
              85   90   95

Lys Cys Trp Glu Asp Ser Ala Gly Lys Gly Leu Arg Thr Arg Pro Ala
            100   105   110

Gly Thr Gly Val Ala Ala Ser Glu Gly Arg Gly Glu Pro Met Ala Ser
            115   120   125

Arg Leu Trp Thr Arg Arg Pro Ser Pro Gly Arg Ser Ala Arg Ser Pro
      130   135   140

Pro Pro Ala Ser Cys Ala Gly Pro Cys Pro Ala Ser Pro Ala Met Val
145   150   155   160

Pro His Pro Pro Pro Arg Glu Arg Pro Cys Pro Pro Ile Leu His Phe
            165   170   175

Pro

<210>   96
<211>   55
<212>   PRT
<213>   Homo sapien

<400>   96

Met Gln Asn Ser Thr Ser Ser Gly Leu Cys Val Asn Val Pro Pro Phe
1   5   10   15

Pro Pro Leu Ser Gly Cys Leu Asn Val Phe Pro Phe Phe His Leu Lys

                    20   25   30

Leu Cys Leu Asp Val Leu His Cys His His Leu Phe Leu Arg Lys Arg
        35   40   45

Cys Val Pro His Pro Asn Pro
    50   55

<210> 97
<211> 24
<212> PRT
<213> Homo sapien

<400> 97

Met Asp His Phe Tyr Leu Leu Ser Asp Thr Tyr Leu Leu Gly Cys Glu
1   5   10   15

Pro Gln Gly Gly Leu Leu Leu Gly
            20

<210> 98
<211> 646
<212> PRT
<213> Homo sapien

<400> 98

Met Glu Pro Ala Ala Gly Phe Leu Ser Pro Arg Pro Phe Gln Arg Ala
1   5   10   15

Ala Ala Ala Pro Ala Pro Pro Ala Gly Pro Gly Pro Pro Pro Ser Ala
            20   25   30

Leu Arg Gly Pro Glu Leu Glu Met Leu Ala Gly Leu Pro Thr Ser Asp
        35   40   45

Pro Gly Arg Leu Ile Thr Asp Pro Arg Ser Gly Arg Thr Tyr Leu Lys
    50   55   60

Gly Arg Leu Leu Gly Lys Gly Gly Phe Ala Arg Cys Tyr Glu Ala Thr
65   70   75   80

Asp Thr Glu Thr Gly Ser Ala Tyr Ala Val Lys Val Ile Pro Gln Ser
            85   90   95

Arg Val Ala Lys Pro His Gln Arg Glu Lys Ile Leu Asn Glu Ile Glu
            100   105   110

92

Leu His Arg Asp Leu Gln His Arg His Ile Val Arg Phe Ser His His
        115   120   125

Phe Glu Asp Ala Asp Asn Ile Tyr Ile Phe Leu Glu Leu Cys Ser Arg
    130   135   140

Lys Ser Leu Ala His Ile Trp Lys Ala Arg His Thr Leu Leu Glu Pro
145   150   155   160

Glu Val Arg Tyr Tyr Leu Arg Gln Ile Leu Ser Gly Leu Lys Tyr Leu
            165   170   175

His Gln Arg Gly Ile Leu His Arg Asp Leu Lys Leu Gly Asn Phe Phe
            180   185   190

Ile Thr Glu Asn Met Glu Leu Lys Val Gly Asp Phe Gly Leu Ala Ala
        195   200   205

Arg Leu Glu Pro Pro Glu Gln Arg Lys Lys Thr Ile Cys Gly Thr Pro
    210   215   220

Asn Tyr Val Ala Pro Glu Val Leu Leu Arg Gln Gly His Gly Pro Glu
225   230   235   240

Ala Asp Val Trp Ser Leu Gly Cys Val Met Tyr Thr Leu Leu Cys Gly
            245   250   255

Ser Pro Pro Phe Glu Thr Ala Asp Leu Lys Glu Thr Tyr Arg Cys Ile
            260   265   270

Lys Gln Val His Tyr Thr Leu Pro Ala Ser Leu Ser Leu Pro Ala Arg
    275   280   285

Gln Leu Leu Ala Ala Ile Leu Arg Ala Ser Pro Arg Asp Arg Pro Ser
    290   295   300

Ile Asp Gln Ile Leu Arg His Asp Phe Phe Thr Lys Gly Tyr Thr Pro
305   310   315   320

Asp Arg Leu Pro Ile Ser Ser Cys Val Thr Val Pro Asp Leu Thr Pro
            325   330   335

Pro Asn Pro Ala Arg Ser Leu Phe Ala Lys Val Thr Lys Ser Leu Phe
            340   345   350

Gly Arg Lys Lys Lys Ser Lys Asn His Ala Gln Glu Arg Asp Glu Val

93

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            355                     360                     365

Ser Gly Leu Val Ser Gly Leu Met Arg Thr Ser Val Gly His Gln Asp
    370                 375                 380

Ala Arg Pro Glu Ala Pro Ala Ala Ser Gly Pro Ala Pro Val Ser Leu
385                 390                 395                 400

Val Glu Thr Ala Pro Glu Asp Ser Ser Pro Arg Gly Thr Leu Ala Ser
                405                 410                 415

Ser Gly Asp Gly Phe Glu Glu Gly Leu Thr Val Ala Thr Val Val Glu
            420                 425                 430

Ser Ala Leu Cys Ala Leu Arg Asn Cys Ile Ala Phe Met Pro Pro Ala
        435                 440                 445

Glu Gln Asn Pro Ala Pro Leu Ala Gln Pro Glu Pro Leu Val Trp Val
    450                 455                 460

Ser Lys Trp Val Asp Tyr Ser Asn Lys Phe Gly Phe Gly Tyr Gln Leu
465                 470                 475                 480

Ser Ser Arg Arg Val Ala Val Leu Phe Asn Asp Gly Thr His Met Ala
            485                 490                 495

Leu Ser Ala Asn Arg Lys Thr Val His Tyr Asn Pro Thr Ser Thr Lys
        500                 505                 510

His Phe Ser Phe Ser Val Gly Ala Val Pro Arg Ala Leu Gln Pro Gln
    515                 520                 525

Leu Gly Ile Leu Arg Tyr Phe Ala Ser Tyr Met Glu Gln His Leu Met
    530                 535                 540

Lys Gly Gly Asp Leu Pro Ser Val Glu Glu Val Glu Val Pro Ala Pro
545                 550                 555                 560

Pro Leu Leu Leu Gln Trp Val Lys Thr Asp Gln Ala Leu Leu Met Leu
                565                 570                 575

Phe Ser Asp Gly Thr Val Gln Val Asn Phe Tyr Gly Asp His Thr Lys
            580                 585                 590

Leu Ile Leu Ser Gly Trp Glu Pro Leu Leu Val Thr Phe Val Ala Arg
    595                 600                 605
```

94

```
Asn Arg Ser Ala Cys Thr Tyr Leu Ala Ser His Leu Arg Gln Leu Gly
    610             615             620


Cys Ser Pro Asp Leu Arg Gln Arg Leu Arg Tyr Ala Leu Arg Leu Leu
625             630             635             640


Arg Asp Arg Ser Pro Ala
                645



<210>  99
<211>  99
<212>  PRT
<213>  Homo sapien

<400>  99

Met Leu Thr Ser Pro Ser Thr Tyr Val Ile Gln Glu Asn Gly Ser Leu
1               5               10              15


Val Glu Ile Arg Asn Ile Leu Gly Glu Lys Tyr Ile Arg Arg Val Arg
            20              25              30


Met Arg Pro Gly Val Ala Cys Ser Val Ser Gln Ala Gln Lys Asp Glu
        35              40              45


Leu Ile Leu Glu Gly Asn Asp Ile Glu Leu Val Ser Asn Ser Ala Cys
    50              55              60


Phe Gly Cys Gln Gln Met Pro Gln Ser Val Lys Asn Lys Asp Ile Arg
65              70              75              80


Lys Phe Leu Asp Gly Ile Tyr Val Ser Glu Lys Gly Thr Val Gln Gln
                85              90              95


Ala Asp Glu



<210>  100
<211>  220
<212>  PRT
<213>  Homo sapien

<400>  100

Met Lys Thr Ile Leu Ser Asn Gln Thr Val Asp Ile Pro Glu Asn Gly
1               5               10              15


Met Arg Leu Asp Val Phe Tyr Leu His Leu Tyr Cys Thr Phe Gln Ala
```

```
                   20                      25                        30


Leu Cys Gly Leu Thr Ser Val Phe Ser Leu Leu Val Asp Ile Thr Leu
        35                  40                  45


Lys Gly Arg Thr Val Ile Val Lys Gly Pro Arg Gly Thr Leu Arg Arg
    50                  55                  60


Asp Phe Asn His Ile Asn Val Glu Leu Ser Leu Leu Gly Lys Lys Lys
65                  70                  75                      80


Lys Arg Leu Arg Val Asp Lys Trp Trp Gly Asn Arg Lys Glu Leu Ala
                85                  90                      95


Thr Val Arg Thr Ile Cys Ser His Val Gln Asn Met Ile Lys Gly Val
                100                 105                 110


Thr Leu Gly Phe Arg Tyr Lys Met Arg Ser Val Tyr Ala His Phe Pro
            115                 120                 125


Ile Asn Val Val Ile Gln Glu Asn Gly Ser Leu Val Glu Ile Arg Asn
        130                 135                 140


Phe Leu Gly Glu Lys Tyr Ile Arg Arg Val Arg Met Arg Pro Gly Val
145                 150                 155                     160


Ala Cys Ser Val Ser Gln Ala Gln Lys Asp Glu Leu Ile Leu Glu Gly
                165                 170                 175


Asn Asp Ile Glu Leu Val Ser Asn Ser Ala Ala Leu Ile Gln Gln Ala
            180                 185                 190


Thr Thr Val Lys Asn Lys Asp Ile Arg Lys Phe Leu Asp Gly Ile Tyr
            195                 200                 205


Val Ser Glu Lys Gly Thr Val Gln Gln Ala Asp Glu
    210                 215                 220


<210>    101
<211>    47
<212>    PRT
<213>    Homo sapien

<400>    101

Met Arg Trp His Thr Tyr Leu Cys Cys Leu Lys Val Thr Ile Met Leu
1               5                   10                  15
```

```
Pro Tyr Gln Ala Glu Asn Val Thr Thr Ile Trp Arg Phe Arg Arg Val
            20                  25              30


Phe Leu Ser Glu Ser Val Met Asn Thr Leu Val Gly Trp Ile Gln
        35                  40              45
```

<210> 102
<211> 51
<212> PRT
<213> Homo sapien

<400> 102

```
Met Ser Ser His Lys Thr Phe Arg Ile Lys Arg Phe Leu Ala Lys Lys
1               5               10              15


Gln Lys Gln Asn Arg Pro Ile Pro Gln Trp Ile Arg Met Lys Thr Gly
            20                  25              30


Asn Lys Ile Arg Tyr Asn Ser Lys Arg Arg His Trp Arg Arg Thr Lys
        35                  40              45


Leu Gly Leu
    50
```

<210> 103
<211> 53
<212> PRT
<213> Homo sapien

<400> 103

```
Met Glu Arg Val Leu Glu Lys Gln Glu Lys Lys Ser Cys Leu Lys Pro
1               5                 10              15


His Val Tyr Cys Arg His Arg Arg Glu Trp Arg His Leu Ser Ile Leu
            20                  25              30


Phe Ser Ile Ser Thr Ala Pro Gln Asn Thr Tyr Ile Leu Phe Phe Phe
        35                  40              45


Phe Ser Glu Met Ser
    50
```

<210> 104
<211> 131
<212> PRT
<213> Homo sapien

<400> 104

Met Arg Val Ser Glu Arg Ala Leu Lys Asn Val Ala Cys Gln Gln His
1   5   10   15

Met Asp Ser Leu Phe Arg Val Cys Ile Tyr Pro Ala Asp Thr Pro Ile
            20   25   30

Pro Pro Ser Leu Pro Pro Arg Ala Ser Asp Phe Leu Phe His Pro Ala
            35   40   45

Ala Tyr Tyr Trp Gln Gly Met Ala Gly Val Asn Leu Gly Ser Val Tyr
    50   55   60

His Gln Gly Lys Leu Pro Ser Leu Leu Gln Ser Leu Trp Lys Gly Thr
65   70   75   80

Phe Phe Arg Val Gln His Val Pro Met His Ser Gln Val Pro Lys Val
            85   90   95

Thr Tyr Thr Tyr Ile Val Asn Ile Val Pro Thr Ala Leu Gln Thr Phe
            100   105   110

Ile Trp Pro Leu Ala Val His Thr Ser Gln Pro Ile His Val Phe Met
        115   120   125

Met Met Phe
    130

<210>   105
<211>   117
<212>   PRT
<213>   Homo sapien

<400>   105

Met Ser Ser Phe Gln Gly Phe Ile Phe Gly Gly Lys Lys Ile Pro Gln
1   5   10   15

Asp Ala Gly Cys Pro Ala Ser His Asn Gly Tyr Ala Pro Ile Glu Thr
            20   25   30

Ser Ser Gly Arg Val Thr Lys Leu Lys Arg Lys Gln Phe Gln Ala Glu
            35   40   45

Gly His Lys Leu Arg Ala Glu Ser Leu Leu Leu Thr Ala Ile Gln Ala
    50   55   60

Gln Gly Leu Cys Gly Ala Gly Phe Leu Lys Ala Gly Leu Tyr Leu Gly

65   70   75   80

Arg Arg Glu Arg Thr Arg Gly Leu Asp Ala Gly Trp Arg Phe Cys Asp
                85   90   95

Leu Leu Cys Tyr Lys Phe Lys Asn Lys Thr Cys Trp Ile Arg Ser Phe
            100   105   110

Ser Tyr Leu Leu Lys
            115

<210> 106
<211> 93
<212> PRT
<213> Homo sapien

<400> 106

Met Pro Gly Val Thr Val Lys Asp Val Asn Gln Gln Glu Phe Val Arg
1   5   10   15

Ala Leu Ala Ala Phe Leu Lys Lys Ser Gly Glu Ala Glu Ser Pro Arg
                20   25   30

Met Gly Gly Ile Pro Phe Lys Leu Ala Lys Ala Gln Arg Ser Leu Leu
            35   40   45

Pro Thr Met Arg Thr Gly Ser Thr Arg Gly Ala Ala Phe Gln Gln Arg
    50   55   60

Arg Ala Thr Cys Tyr Leu Pro Gly Val Gly Ala Gly Gly Trp Ala Ser
65   70   75   80

Ile Glu Pro Lys Asp Ser Ile Gly Gly Glu Arg Ser Glu
                85   90

<210> 107
<211> 148
<212> PRT
<213> Homo sapien

<400> 107

Met Leu Leu Val Gly Ser Cys His Leu Ser Gly Asp Ser Val Gln Ile
1   5   10   15

Ser Leu Ser Leu Arg Cys Gln Phe Ala Ala Ala Ile Leu Val Leu Phe
            20   25   30

99

His His Phe Gln Pro Leu Gln Gly Leu Glu Asp Pro Ala Gly His Thr
        35   40   45

Leu Gly Ala Ser Ala Glu Val Ala Gly His Asp Ala Val Ser Leu Thr
    50   55   60

Ser Pro Ile Asp Leu Gly His Gly Ala Asn Pro Ser Ala.Thr Pro Glu
65   70   75   80

Val Gln Val Pro Arg Cys Gly Ser Ser Ser Arg Val Glu Pro Val Leu
                85   90   95

Ile Val Gly Ser Lys Leu Phe Val Leu Gly Gln Leu Asp Gly Ile His
            100   105   110

Pro Phe Gly Asp Phe Gln Leu Pro Gly Leu Phe Glu Glu Gly Cys Gln
        115   120   125

Ser Ser Asp Glu Leu Leu Leu Val His Val Phe Tyr Ser Asn Ser Arg
    130   135   140

His Arg Ala Ala
145

<210> 108
<211> 172
<212> PRT
<213> Homo sapien

<400> 108

Met Val Cys Gly Gly Phe Ala Cys Ser Ser Leu Arg Val Val Gly Val
1   5   10   15

Val Ile Ala Val Gly Ile Phe Leu Phe Leu Ile Ala Leu Val Gly Leu
            20   25   30

Ile Gly Ala Val Lys His His Gln Val Leu Leu Phe Phe Tyr Met Ile
        35   40   45

Ile Leu Leu Leu Val Phe Ile Val Gln Phe Ser Val Ser Cys Ala Cys
    50   55   60

Leu Ala Leu Asn Gln Glu Gln Gln Gly Gln Leu Leu Glu Val Gly Trp
65   70   75   80

Asn Asn Thr Ala Ser Ala Arg Asn Asp Ile Gln Arg Asn Leu Asn Cys
            85   90   95

Cys Gly Phe Arg Ser Val Asn Pro Asn Asp Thr Cys Leu Ala Ser Cys
         100   105   110

Val Lys Ser Asp His Ser Cys Ser Pro Cys Ala Pro Ile Ile Gly Glu
         115   120   125

Tyr Ala Gly Glu Val Leu Arg Phe Val Gly Gly Ile Gly Leu Phe Phe
    130   135   140

Ser Phe Thr Glu Ile Leu Gly Val Trp Leu Thr Tyr Arg Tyr Arg Asn
145   150   155   160

Gln Lys Asp Pro Arg Ala Asn Pro Ser Ala Phe Leu
             165   170

<210>   109
<211>   55
<212>   PRT
<213>   Homo sapien

<400>   109

Met Asn Phe Asp Tyr Ser Val Asn Tyr Trp Asn Val Ser Ser Phe Asn
1   5   10   15

Phe Lys Asn Asn Tyr Phe Thr Ser Ser Asp Trp Gly Phe Pro Glu Ile
             20   25   30

Cys Glu Glu Gln Arg Arg Pro Pro Ala Thr Gln His His His Asp Gly
         35   40   45

Ala Leu Thr Gly Ser Glu Ser
    50   55

<210>   110
<211>   125
<212>   PRT
<213>   Homo sapien

<400>   110

Met Gln Ala Leu Pro Gln Val Glu Lys Arg Arg Leu Arg Leu Pro Arg
1   5   10   15

Glu Val Gln Cys Pro Ala Leu Leu Arg Arg Met Leu Leu Ile Pro Leu
             20   25   30

Trp Lys Ile Pro Ala Pro Thr Thr Thr Lys Ser Cys Arg Glu Thr Phe

          35   40   45

Leu Lys Trp Leu Ser Val Ser Ala Ala Glu Arg Thr Thr Gly Ser Trp
        50   55   60

Thr Ser Phe Gln Pro Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro
65   70   75   80

Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg
                85   90   95

Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser
            100   105   110

Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
        115   120   125

<210> 111
<211> 1256
<212> PRT
<213> Homo sapien

<400> 111

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
        50   55   60

Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
65   70   75   80

Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln
                85   90   95

Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr
            100   105   110

Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Lys Pro Ala Pro
        115   120   125

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
    130   135   140

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
145   150   155   160

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
            165   170   175

Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Pro Pro Gly Ser Thr Ala
        180   185   190

Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
    195   200   205

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
    210   215   220

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
225   230   235   240

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
            245   250   255

Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
        260   265   270

Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
    275   280   285

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
    290   295   300

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
305   310   315   320

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
            325   330   335

Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
        340   345   350

Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
    355   360   365

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
    370   375   380

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
385   390   395   400

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
                405   410   415

Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
                420   425   430

Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
        435   440   445

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
    450   455   460

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
465   470   475   480

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
                485   490   495

Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
                500   505   510

Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
        515   520   525

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
    530   535   540

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
545   550   555   560

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
                565   570   575

Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
                580   585   590

Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
        595   600   605

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr

104

```
     610                      615                          620


Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
625                 630              635                      640


Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
              645              650                  655


Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
          660                  665                  670


Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
      675                  680                  685


Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
      690                  695                  700


Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
705                 710              715                      720


Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
              725              730                  735


Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
          740                  745                  750


Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
      755                  760                  765


Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
      770                  775                  780


Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
785                 790              795                      800


Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
              805              810                  815


Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
          820                  825                  830


Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
      835                  840                  845


Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
      850                  855                  860
```

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Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
865               870           875               880


Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Val His
              885           890               895


Gly Val Thr Ser Ala Pro Asp Ser Arg Ser Gly Ser Gly Phe Leu Pro
              900           905               910


Pro Pro Ala Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala
        915               920           925


Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp
        930           935               940


Asn Arg Pro Ala Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr
945               950           955               960


Ser Ala Ser Gly Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn
              965           970               975


Gly Thr Ser Ala Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro
        980           985               990


Phe Ser Ile Pro Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser
        995           1000          1005


His Ser Thr Lys Thr Asp Ala Ser Ser Thr His His Ser Thr Val
    1010          1015              1020


Pro Pro Leu Thr Ser Ser Asn His Ser Thr Ser Pro Gln Leu Ser
    1025          1030              1035


Thr Gly Val Ser Phe Phe Phe Leu Ser Phe His Ile Ser Asn Leu
    1040          1045              1050


Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp Tyr Tyr Gln
    1055          1060              1065


Glu Leu Gln Arg Asp Ile Ser Glu Met Phe Leu Gln Ile Tyr Lys
    1070          1075              1080


Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly
    1085          1090              1095
```

```
Ser Val   Val Val Gln Leu Thr   Leu Ala Phe Arg Glu   Gly Thr Ile
    1100                  1105                 1110


Asn Val   His Asp Val Glu Thr   Gln Phe Asn Gln Tyr   Lys Thr Glu
    1115                  1120                 1125


Ala Ala   Ser Arg Tyr Asn Leu   Thr Ile Ser Asp Val   Ser Val Ser
    1130                  1135                 1140


Asp Val   Pro Phe Pro Phe Ser   Ala Gln Ser Gly Ala   Gly Val Pro
    1145                  1150                 1155


Gly Trp   Gly Ile Ala Leu Leu   Val Leu Val Cys Val   Leu Val Ala
    1160                  1165                 1170


Leu Ala   Ile Val Tyr Leu Ile   Ala Leu Ala Val Cys   Gln Cys Arg
    1175                  1180                 1185


Arg Lys   Asn Tyr Gly Gln Leu   Asp Ile Phe Pro Ala   Arg Asp Thr
    1190                  1195                 1200


Tyr His   Pro Met Ser Glu Tyr   Pro Thr Tyr His Thr   His Gly Arg
    1205                  1210                 1215


Tyr Val   Pro Pro Ser Ser Thr   Asp Arg Ser Pro Tyr   Glu Lys Val
    1220                  1225                 1230


Ser Ala   Gly Asn Gly Gly Ser   Ser Leu Ser Tyr Thr   Asn Pro Ala
    1235                  1240                 1245


Val Ala   Ala Thr Ser Ala Asn   Leu
    1250                  1255


<210>   112
<211>   728
<212>   PRT
<213>   Homo sapien

<400>   112

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1             5                 10                15


Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20                25                30


Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
```

<pre>
           35   40   45

     Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
         50   55   60

     Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
     65   70   75   80

     Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln
                     85   90   95

     Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr
                 100   105   110

     Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Lys Pro Ala Pro
             115   120   125

     Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
         130   135   140

     Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Pro Ala His Gly Val Thr
     145   150   155   160

     Ser Ala Pro Asp Thr Arg Pro Pro Gly Ser Thr Ala Pro Pro Ala
                 165   170   175

     His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
                 180   185   190

     Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
             195   200   205

     Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
         210   215   220

     Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
     225   230   235   240

     Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
                 245   250   255

     Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
                 260   265   270

     Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
             275   280   285
</pre>

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
    290   295   300

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
305   310   315   320

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
                325   330   335

Met Val Ser Ile Gly Leu Ser Phe Pro Ser Ser Pro Glu Ala Ala Ile
                340   345   350

Arg Thr Val His Thr Leu Cys Ile Lys Pro Glu Ser Phe Pro Ser His
        355   360   365

Pro Ser Phe Cys Arg Phe Ile Asn Lys Gly Val Phe Trp Ala Ser Pro
    370   375   380

Ile Leu Ser Ser Gly Thr Val Leu Gly Val Asp Pro Val Trp Trp Leu
385   390   395   400

Glu Gly Trp Val Val Val Met Thr Val Gly Gly Thr Gly Arg Thr Tyr
                405   410   415

Gly Trp Gly Lys Ser Arg Glu Pro Glu Leu Gly Pro Val Ala Glu Val
            420   425   430

Pro Ile Phe Pro Val Thr Arg Pro Gly Ser Val Val Val Gln Leu Thr
        435   440   445

Leu Ala Phe Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln
    450   455   460

Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile
465   470   475   480

Ser Asp Val Ser Gly Glu Ala Thr Ser Leu Ala Ala Ala Gln His His
            485   490   495

Ala Gly Ala Leu Ser Phe Gln Cys Leu Gly Pro Arg Ser Phe Leu Ser
            500   505   510

Ala Gly Ser Gly Arg Gly Ala Ser Ser Gly Arg Leu Pro Cys Pro Leu
            515   520   525

```
Leu Phe Leu Leu Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser
    530             535             540

Gly Ala Gly Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys
545             550             555             560

Val Leu Val Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Val Ser Ala
                565             570             575

Val Pro Gly Pro Asp Gln Ser Pro Pro Val Glu Gly Ser Ser Met Ala
            580             585             590

Cys His Asn Leu Leu Ser Pro Gln Ala Val Cys Gln Cys Arg Arg Lys
        595             600             605

Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro
    610             615             620

Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro
625             630             635             640

Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Arg Leu Ala Pro Gln
            645             650             655

Ala Arg Gly Ser Arg Gly Phe Gly Trp Ala Arg Ile Leu Lys Gly Val
            660             665             670

Leu Gly Lys Pro Lys Glu Leu Gly Arg Gly Glu Lys Trp Arg Glu Val
            675             680             685

Ser Arg Gly Gly Pro Gly Lys Asp Glu Gly Gln Arg Ser Glu Glu Phe
    690             695             700

Trp Gly Thr Gly Leu Gly Gly Asp Tyr Gly Arg Lys Gly Pro Ser Lys
705             710             715             720

Gly Ser Gly Pro Thr Ala Arg Ile
                725
```

```
<210>  113
<211>  524
<212>  PRT
<213>  Homo sapien

<400>  113
```

```
Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
```

110

```
1                    5                    10                        15
```

Val Leu Thr Ala Thr Thr Ala Pro Thr Pro Ala Thr Val Val Thr Gly
            20   25   30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35   40   45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50   55   60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65   70   75   80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85   90   95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100   105   110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala
            165   170   175

Pro Gly Ser Thr Ala Pro Ala Ala His Gly Val Thr Ser Ala Pro Asp
            180   185   190

Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr
        195   200   205

Ser Ala Pro Asp Asn Arg Pro Ala Leu Gly Ser Thr Ala Pro Pro Val
    210   215   220

His Asn Val Thr Ser Ala Ser Gly Ser Ala Ser Gly Ser Ala Ser Thr
225   230   235   240

Leu Val His Asn Gly Thr Ser Ala Arg Ala Thr Thr Thr Pro Ala Ser
            245   250   255

```
Lys Ser Thr Pro Phe Ser Ile Pro Ser His His Ser Asp Thr Pro Thr
          260             265             270

Thr Leu Ala Ser His Ser Thr Lys Thr Asp Ala Ser Ser Thr His His
          275             280             285

Ser Thr Val Pro Pro Leu Thr Ser Ser Asn His Ser Thr Ser Pro Gln
    290             295             300

Leu Ser Thr Gly Val Ser Phe Phe Phe Leu Ser Phe His Ile Ser Asn
305             310             315             320

Leu Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp Tyr Tyr Gln
              325             330             335

Glu Leu Gln Arg Asp Ile Ser Glu Met Phe Leu Gln Ile Tyr Lys Gln
          340             345             350

Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly Ser Val
          355             360             365

Val Val Gln Leu Thr Leu Ala Phe Arg Glu Gly Thr Ile Asn Val His
    370             375             380

Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Arg
385             390             395             400

Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val Pro Phe Pro
              405             410             415

Phe Ser Ala Gln Ser Gly Ala Gly Val Pro Gly Trp Gly Ile Ala Leu
          420             425             430

Leu Val Leu Val Cys Val Leu Val Ala Leu Ala Ile Val Tyr Leu Ile
          435             440             445

Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp
    450             455             460

Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr
465             470             475             480

Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser
              485             490             495
```

Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr
　　　　　　 500　　　　　　　　　 505　　　　　　　　 510

Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
　　　　　 515　　　　　　　 520

<210> 114
<211> 515
<212> PRT
<213> Homo sapien

<400> 114

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1　　　　　　　 5　　　　　　　　 10　　　　　　　　 15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
　　　　　 20　　　　　　　　 25　　　　　　　　 30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
　　　　 35　　　　　　　　 40　　　　　　　　 45

Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
　　 50　　　　　　　　 55　　　　　　　　 60

Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
65　　　　　　　 70　　　　　　　　 75　　　　　　　　 80

Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln
　　　　　　 85　　　　　　　　 90　　　　　　　　 95

Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr
　　　　　 100　　　　　　　 105　　　　　　　 110

Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Lys Pro Ala Pro
　　　　 115　　　　　　　 120　　　　　　　 125

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
　　 130　　　　　　　 135　　　　　　　 140

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
145　　　　　　　 150　　　　　　　 155　　　　　　　 160

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Ala Ala His
　　　　　 165　　　　　　　 170　　　　　　　 175

Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala

<pre>
         180   185   190

Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala Leu
        195   200   205

Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly Ser
        210   215   220

Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala Arg
225   230   235   240

Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro Ser
                245   250   255

His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys Thr
            260   265   270

Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser Ser
        275   280   285

Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe Phe
        290   295   300

Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp
305   310   315   320

Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met
                325   330   335

Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile
            340   345   350

Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg
        355   360   365

Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr
    370   375   380

Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser
385   390   395   400

Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val
                405   410   415

Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala
            420   425   430
</pre>

114

```
Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg
        435             440             445  .

Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His
        450             455             460

Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro
465             470             475             480

Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn
            485             490             495

Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser
        500             505             510

Ala Asn Leu
        515


<210>   115
<211>   109
<212>   PRT
<213>   Homo sapien

<400>   115

Met Leu Glu Arg Arg Pro Pro Ala Val Arg Arg Pro Gly Leu Thr Ala
1               5               10              15
                                                            .

Pro Ala Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
            20              25              30

Gly Ser Thr Ala Pro Ala Ala His Gly Val Thr Ser Ala Pro Asp Thr
        35              40              45

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Phe
    50              55              60

Val Pro Arg Thr Ser Gly Arg Arg Leu Ala Leu Phe Leu Val Tyr Val
65              70              75              80

Phe Arg Val Glu Asp Val Val Gln Thr Arg Leu Asp Thr Leu Arg Ile
            85              90              95

Ala Lys Tyr Ile Asp Gly Ser Tyr Ala Val Ser Val Cys
            100             105
```

<210> 116
<211> 174
<212> PRT
<213> Homo sapien

<220>
<221> MISC_FEATURE
<222> (167)..(167)
<223> X= any amino acid

<400> 116

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Ala Thr Thr Ala Pro Thr Pro Ala Thr Val Val Thr Gly
            20   25   30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35   40   45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50   55   60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65   70   75   80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                85   90   95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100   105   110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
            115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Arg Pro
    130   135   140

Ser Cys Gly Ser Gly Leu Gly Thr Ala Cys Val Pro Gly Leu Gln Leu
145   150   155   160

Leu Leu Val Gly Ala His Xaa Thr Gln Leu Leu Thr Tyr Asp
                165   170

<210> 117
<211> 475
<212> PRT
<213> Homo sapien

<400> 117

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
    50   55   60

Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
65   70   75   80

Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln
                85   90   95

Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr
            100   105   110

Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Lys Pro Ala Pro
        115   120   125

Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
    130   135   140

Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
145   150   155   160

Ala Pro Asp Asn Arg Pro Ala Leu Gly Ser Thr Ala Pro Pro Val His
            165   170   175

Asn Val Thr Ser Ala Ser Gly Ser Ala Ser Gly Ser Ala Ser Thr Leu
            180   185   190

Val His Asn Gly Thr Ser Ala Arg Ala Thr Thr Thr Pro Ala Ser Lys
        195   200   205

Ser Thr Pro Phe Ser Ile Pro Ser His His Ser Asp Thr Pro Thr Thr
    210   215   220

Leu Ala Ser His Ser Thr Lys Thr Asp Ala Ser Ser Thr His His Ser
225   230   235   240

117

```
Thr Val Pro Pro Leu Thr Ser Ser Asn His Ser Thr Ser Pro Gln Leu
            245                 250                 255

Ser Thr Gly Val Ser Phe Phe Phe Leu Ser Phe His Ile Ser Asn Leu
            260             265                 270

Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp Tyr Tyr Gln Glu
        275             280                 285

Leu Gln Arg Asp Ile Ser Glu Met Phe Leu Gln Ile Tyr Lys Gln Gly
    290             295                 300

Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly Ser Val Val
305                 310             315                 320

Val Gln Leu Thr Leu Ala Phe Arg Glu Gly Thr Ile Asn Val His Asp
            325             330                 335

Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Arg Tyr
            340             345             350

Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val Pro Phe Pro Phe
        355             360             365

Ser Ala Gln Ser Gly Ala Gly Val Pro Gly Trp Gly Ile Ala Leu Leu
    370             375             380

Val Leu Val Cys Val Leu Val Ala Leu Ala Ile Val Tyr Leu Ile Ala
385             390             395                 400

Leu Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile
            405             410             415

Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr
            420             425             430

His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro
        435             440             445

Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr
    450             455             460

Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
465             470             475
```

```
<210>  118
<211>  231
<212>  PRT
<213>  Homo sapien

<400>  118

Met Cys Pro Leu Ala Val Pro Ile Val Ala Pro Met Arg Arg Phe Leu
1               5                   10                  15


Gln Val Met Val Ala Ala Ala Ser Leu Thr Gln Thr Gln Gln Trp Gln
                20                  25                  30


Pro Leu Leu Pro Thr Cys Arg Gly Thr Ser Pro Ala Glu Leu Ser Gly
         35                  40                  45


Gln Pro Val Pro Phe His Ser Thr Gln Val Leu Gln Gly Gln Ser Pro
     50                  55                  60


Cys Thr Leu Phe Gly Leu Val Ser Trp Glu Phe Arg Trp Ala Ala His
65                  70                  75                  80


Ser Leu Leu Gln Arg Pro His Asp Tyr Phe Arg Lys Phe Glu Pro His
             85                  90                  95


Leu Tyr Ser Leu Asp Ser Asn Ser Asp Asp Val Asp Ser Leu Thr Asp
             100                 105                 110


Glu Glu Ile Leu Ser Lys Tyr Gln Leu Gly Met Leu His Phe Ser Thr
             115                 120                 125


Gln Tyr Asp Leu Leu His Asn His Leu Thr Val Arg Val Ile Glu Ala
     130                 135                 140


Arg Asp Leu Pro Pro Pro Ile Ser His Asp Gly Ser Arg Gln Asp Met
145                 150                 155                 160


Ala His Ser Asn Pro Tyr Val Lys Ile Cys Leu Leu Pro Asp Gln Lys
                 165                 170                 175


Asn Ser Lys Gln Thr Gly Val Lys Arg Lys Thr Gln Lys Pro Val Phe
             180                 185                 190


Glu Glu Arg Tyr Thr Phe Glu Ile Pro Phe Leu Glu Ala Gln Arg Arg
             195                 200                 205


Thr Leu Leu Leu Thr Val Val Asp Phe Asp Lys Phe Ser Arg His Cys
```

```
         210                    215                    220


Val Ile Gly Lys Val Ser Val
225             230


<210>   119
<211>   107
<212>   PRT
<213>   Homo sapien

<400>   119

Met Val Ala Ala Ala Ser Leu Thr Gln Thr Gln Gln Trp Gln Pro Leu
1               5                   10                  15


Leu Pro Thr Cys Arg Gly Thr Ser Pro Ala Glu Leu Ser Gly Gln Pro
            20              25                  30


Val Pro Phe His Ser Thr Gln Val Leu Gln Gly Gln Ser Pro Cys Thr
            35                  40                  45


Leu Phe Gly Leu Val Ser Trp Glu Phe Arg Trp Ala Ala His Ser Leu
    50                  55                  60


Leu Gln Arg Pro His Gln Phe Leu Gly His Phe Ser Val Cys Gly Ser
65                  70                  75                  80


Ser Cys Gly Pro Leu Arg Ala His Ala Trp Glu Val Leu Trp Trp Gly
            85                  90                  95


Leu Pro Gly Gly Leu Ala Gln Arg Ala Leu Arg
            100                 105


<210>   120
<211>   484
<212>   PRT
<213>   Homo sapien

<400>   120

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5                   10                  15


Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25                  30


Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35                  40                  45
```

120

```
Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50              55              60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65              70              75                      80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85              90              95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100             105             110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115             120             125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130             135             140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145             150             155             160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            165             170             175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180             185             190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195             200             205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210             215             220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225             230             235             240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            245             250             255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
        260             265             270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
    275             280             285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
```

121

```
        290                      295                    300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305             310                 315                       320

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
                325                 330                       335

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
                340                 345                 350

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
        355                 360                 365

Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly
    370                     375                 380

Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val
385                 390                 395                   400

Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg
                405                 410                   415

Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr
            420                 425                 430

His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val
        435                 440                 445

Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly
    450                     455                 460

Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr
465                 470                 475                   480

Ser Ala Asn Leu
```

```
<210>   121
<211>   463
<212>   PRT
<213>   Homo sapien

<400>   121

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5                   10                  15
```

122

```
Val Leu Thr Gly Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser
            20              25              .        30

Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val
         35              40              45

Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln
         50              55              60

Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala
65              70              75              80

Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu
              85              90        .        95

Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn
              100             105             110

Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
         115             120             125

Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
         130             135             140

Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala Leu Gly Ser Thr Ala
145             150             155             160

Pro Pro Val His Asn Val Thr Ser Ala Ser Gly Ser Ala Ser Gly Ser
              165             170             175

Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala Arg Ala Thr Thr Thr
              180             185             190

Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro Ser His His Ser Asp
         195             200             205

Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys Thr Asp Ala Ser Ser
210             215             220

Thr His His Ser Thr Val Pro Pro Leu Thr Ser Ser Asn His Ser Thr
225             230             235             240

Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe Phe Leu Ser Phe His
              245             250             255
```

```
Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp
            260             265             270

Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met Phe Leu Gln Ile
        275             280             285

Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro
    290             295             300

Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg Glu Gly Thr Ile
305             310             315             320

Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala
            325             330             335

Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val
        340             345             350

Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val Pro Gly Trp Gly
        355             360             365

Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala Leu Ala Ile Val
    370             375             380

Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly
385             390             395             400

Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu
            405             410             415

Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr
            420             425             430

Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser
        435             440             445

Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
    450             455             460
```

```
<210>  122
<211>  524
<212>  PRT
<213>  Homo sapien

<400>  122
```

```
Met Gly Arg Glu Lys Glu Ala Ala Ala Gly Lys Glu Ala Ala Asn Pro
1               5               10              15
```

Gly Val Thr Glu Ala Ala His Ser Pro Val Leu Leu Val Leu Phe Leu
    20   25   30

Trp Trp Pro Glu Leu Ile Phe Ser Ser Cys Ser Tyr Phe Ser Phe Ile
    35   40   45

Lys Thr Gln Pro Tyr Asp Phe Asn Phe Phe Thr Ala Thr Thr Ala Pro
  50   55   60

Lys Pro Ala Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro
65   70   75   80

Gly Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser
      85   90   95

Ser Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser
    100   105   110

His Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr
    115   120   125

Leu Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly
  130   135   140

Gln Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr
145   150   155   160

Thr Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Lys Pro Ala
    165   170   175

Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp
    180   185   190

Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr
    195   200   205

Ser Ala Pro Asp Asn Arg Pro Ala Leu Gly Ser Thr Ala Pro Pro Val
  210   215   220

His Asn Val Thr Ser Ala Ser Gly Ser Ala Ser Gly Ser Ala Ser Thr
225   230   235   240

Leu Val His Asn Gly Thr Ser Ala Arg Ala Thr Thr Thr Pro Ala Ser
    245   250   255

Lys Ser Thr Pro Phe Ser Ile Pro Ser His His Ser Asp Thr Pro Thr
260   265   270

Thr Leu Ala Ser His Ser Thr Lys Thr Asp Ala Ser Ser Thr His His
    275   280   285

Ser Thr Val Pro Pro Leu Thr Ser Ser Asn His Ser Thr Ser Pro Gln
    290   295   300

Leu Ser Thr Gly Val Ser Phe Phe Phe Leu Ser Phe His Ile Ser Asn
305   310   315   320

Leu Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp Tyr Tyr Gln
            325   330   335

Glu Leu Gln Arg Asp Ile Ser Glu Met Phe Leu Gln Ile Tyr Lys Gln
            340   345   350

Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly Ser Val
        355   360   365

Val Val Gln Leu Thr Leu Ala Phe Arg Glu Gly Thr Ile Asn Val His
    370   375   380

Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Arg
385   390   395   400

Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val Pro Phe Pro
            405   410   415

Phe Ser Ala Gln Ser Gly Ala Gly Val Pro Gly Trp Gly Ile Ala Leu
        420   425   430

Leu Val Leu Val Cys Val Leu Val Ala Leu Ala Ile Val Tyr Leu Ile
        435   440   445

Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp
        450   455   460

Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr
465   470   475   480

Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser
            485   490   495

Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr
            500   505   510

Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
        515   520

<210> 123
<211> 435
<212> PRT
<213> Homo sapien

<400> 123

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
            35   40   45

Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
        50   55   60

Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
65   70   75   80

Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln
                85   90   95

Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr
            100   105   110

Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Arg Pro Ala Leu
        115   120   125

Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly Ser
    130   135   140

Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala Arg
145   150   155   160

Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro Ser
                165   170   175

His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys Thr
            180   185   190

```
Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser Ser
        195             200             205


Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe Phe
    210             215             220


Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp
225             230             235             240


Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met
            245             250             255


Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile
            260             265             270


Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg
        275             280             285


Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr
    290             295             300


Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser
305             310             315             320


Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val
            325             330             335


Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala
            340             345             350


Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg
        355             360             365


Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His
    370             375             380


Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro
385             390             395             400


Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn
            405             410             415


Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser
        420             425             430
```

Ala Asn Leu
        435

<210> 124
<211> 273
<212> PRT
<213> Homo sapien

<400> 124

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Leu Ser Thr Gly Val Ser Phe Phe Phe Leu Ser
    50   55   60

Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser
65   70   75   80

Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met Phe Leu
                85   90   95

Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe
                100   105   110

Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg Glu Gly
        115   120   125

Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr
    130   135   140

Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser
145   150   155   160

Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val Pro Gly
            165   170   175

Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala Leu Ala
            180   185   190

Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn

```
            195                    200                    205


        Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met
            210                215                220


        Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser
        225                230                235                240


        Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly
                        245                250                255


        Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn
                        260                265                270


        Leu


        <210>   125
        <211>   350
        <212>   PRT
        <213>   Homo sapien

        <400>   125

        Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
        1               5                   10                  15


        Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
                        20                25                30


        Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
                    35                40                45


        Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
            50                  55                60


        Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
        65                  70                75                80


        Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                        85                90                95


        Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
                        100                105                110


        Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
                    115                120                125
```

130

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
                165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180   185   190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195   200   205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210   215   220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225   230   235   240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            245   250   255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260   265   270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275   280   285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290   295   300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305   310   315   320

Ile Lys Phe Arg Tyr Ser Ser Gly Cys Gly Pro Ser Val Val Val Gly
            325   330   335

Gly Trp Val Val Val Met Thr Val Gly Arg Asp Trp Cys Thr
        340   345   350

<210> 126
<211> 316
<212> PRT
<213> Homo sapien

<400> 126

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20   25   30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35   40   45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
        50   55   60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65   70   75   80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85   90   95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100   105   110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
        130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180   185   190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195   200   205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210   215   220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225   230   235   240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
                245   250   255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260   265   270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275   280   285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290   295   300

Met Val Ser Ile Gly Leu Ser Phe Pro Met Leu Pro
305   310   315

<210>   127
<211>   230
<212>   PRT
<213>   Homo sapien

<400>   127

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Ile Pro Ala Pro Thr Thr Thr Lys Ser Cys Arg
    50   55   60

Glu Thr Phe Leu Lys Trp Pro Gly Ser Val Val Val Gln Leu Thr Leu
65   70   75   80

Ala Phe Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe
            85   90   95

Asn Gln Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser
            100   105   110

Asp Val Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly
    115   120   125

```
Ala Gly Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val
    130             135             140
```

```
Leu Val Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln
145             150             155             160
```

```
Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp
            165             170             175
```

```
Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg
            180             185             190
```

```
Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser
        195             200             205
```

```
Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala
    210             215             220
```

```
Ala Thr Ser Ala Asn Leu
225             230
```

```
<210> 128
<211> 614
<212> PRT
<213> Homo sapien

<400> 128
```

```
Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15
```

```
Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30
```

```
Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35              40              45
```

```
Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50              55              60
```

```
Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65              70              75              80
```

```
Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85              90              95
```

```
Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100             105             110
```

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
    115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
           165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
           180   185   190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
      195   200   205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210   215   220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225   230   235   240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
           245   250   255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
           260   265   270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
           275   280   285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290   295   300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305   310   315   320

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
           325   330   335

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
           340   345   350

135

```
Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
    355             360             365

Ser Val Leu Leu Ile Gly Gly Gly Glu Arg Arg Tyr Arg Ala Met Val
    370             375             380

Ser Ala Thr Gly Ile Ser Leu Gly Ala Met Ala Gly Lys Gly Gly Gly
385             390             395             400

Val Ser Glu Trp Trp Leu Gly Ile Glu Asn Gly Val Leu Leu Leu Ala
            405             410             415

Gly Val Val Val Ala Leu Ala Glu Val Pro Leu Cys Thr Arg Val Glu
            420             425             430

Ala Glu Pro Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu
        435             440             445

Thr Ser Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser
    450             455             460

Phe Phe Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser
465             470             475             480

Leu Glu Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile
            485             490             495

Ser Glu Asp Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly
            500             505             510

Ala Gly Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val
        515             520             525

Leu Val Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln
    530             535             540

Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp
545             550             555             560

Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg
            565             570             575

Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser
        580             585             590
```

```
Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala
        595             600             605

Ala Thr Ser Ala Asn Leu
    610


<210>  129
<211>  372
<212>  PRT
<213>  Homo sapien

<400>  129

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Thr
1             5               10              15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
        20              25              30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
        35              40              45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50              55              60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65              70              75              80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85              90              95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
        100             105             110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115             120             125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130             135             140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145             150             155             160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
        165             170             175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
        180             185             190
```

```
Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195             200             205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
210             215             220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225             230             235             240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            245             250             255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260             265             270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275             280             285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
        290             295             300

Met Trp Gly Ala Arg Leu Gly His Arg Ala Ala Gly Ala Gly Leu Cys
305             310             315             320

Ser Gly Cys Ala Gly His Cys Leu Ser His Cys Leu Gly Cys Leu Ser
            325             330             335

Val Pro Pro Lys Glu Leu Arg Ala Ala Gly His Leu Ser Ser Pro Gly
            340             345             350

Tyr Leu Pro Ser Tyr Glu Arg Val Pro His Leu Pro His Pro Trp Ala
        355             360             365

Leu Cys Ala Pro
    370


<210>   130
<211>   256
<212>   PRT
<213>   Homo sapien

<400>   130

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15
```

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
          20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
          35   40   45

Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
          50   55   60

Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
65   70   75   80

Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln
              85   90   95

Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr
          100   105   110

Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Arg Pro Ala Leu
          115   120   125

Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly Ser
130   135   140

Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala Arg
145   150   155   160

Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro Ser
              165   170   175

His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys Thr
          180   185   190

Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser Ser
          195   200   205

Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe Phe
          210   215   220

Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp
225   230   235   240

Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met
              245   250   255

<210>   131

```
<211>   492
<212>   PRT
<213>   Homo sapien

<400>   131

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10                  15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20                  25                  30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35                  40                  45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50                  55                  60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65                  70                  75                  80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                85                  90                  95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100                 105                 110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115                 120                 125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
        130                 135                 140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145                 150                 155                 160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
                165                 170                 175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180                 185                 190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195                 200                 205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210                 215                 220
```

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225   230   235   240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
                245   250   255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
                260   265   270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275   280   285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290   295   300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305   310   315   320

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
                325   330   335

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
            340   345   350

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
        355   360   365

Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly
    370   375   380

Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val
385   390   395   400

Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg
                405   410   415

Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr
            420   425   430

His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val
        435   440   445

Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Arg Leu Gly
    450   455   460

Pro Thr Gly Gln Gly Lys Gln Arg Val Trp Leu Gly Lys Asp Ser Glu
465   470   475   480

Gly Gly Thr Trp Lys Thr Gln Arg Ala Trp Lys Arg
                485   490

<210> 132
<211> 483
<212> PRT
<213> Homo sapien

<400> 132

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20   25   30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35   40   45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
        50   55   60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65   70   75   80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                85   90   95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100   105   110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180   185   190

142

```
Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195         200             205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
210             215             220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225             230             235             240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            245             250             255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
        260             265             270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275             280             285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290             295             300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305             310             315             320

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
            325             330             335

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
            340             345             350

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
        355             360             365

Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly
    370             375             380

Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val
385             390             395             400

Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg
            405             410             415

Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr
        420             425             430
```

His Pro Met Ser Glu Trp Arg Val Tyr Glu Glu Lys Lys Lys Glu Val
        435   440   445

Pro Ala Val Pro Glu Thr Leu Lys Lys Lys Arg Arg Asn Phe Ala Glu
    450   455   460

Leu Lys Ile Lys Arg Leu Arg Lys Lys Phe Ala Lys Arg Cys Phe Glu
465   470   475   480

Arg Gln Gly

<210> 133
<211> 150
<212> PRT
<213> Homo sapien

<400> 133

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Phe Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp
    50   55   60

Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met Ala Val Cys Gln
65   70   75   80

Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp
            85   90   95

Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg
            100   105   110

Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser
        115   120   125

Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala
    130   135   140

Ala Thr Ser Ala Asn Leu

145   150

<210> 134
<211> 168
<212> PRT
<213> Homo sapien

<400> 134

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Leu Ser Thr Gly Val Ser Phe Phe Phe Leu Ser
    50   55   60

Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser
65   70   75   80

Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met Ala Val
            85   90   95

Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala
            100   105   110

Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His
        115   120   125

Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys
    130   135   140

Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala
145   150   155   160

Val Ala Ala Thr Ser Ala Asn Leu
                165

<210> 135
<211> 79
<212> PRT
<213> Homo sapien

<400> 135

```
Ser Pro Glu Trp Leu Thr Leu Ile Ser Ser Pro Gly Lys Asn Tyr Gly
1               5               10              15


Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu
            20              25              30


Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr
        35              40              45


Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser
    50              55              60


Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
65              70              75
```

<210> 136
<211> 398
<212> PRT
<213> Homo sapien

<400> 136

```
Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15


Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30


Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
        35              40              45


Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50              55              60


Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65              70              75              80


Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85              90              95


Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100             105             110


Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115             120             125


Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130             135             140
```

146

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
                165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
                180   185   190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
            195   200   205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210   215   220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225   230   235   240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            245   250   255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260   265   270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
    275   280   285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290   295   300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305   310   315   320

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
            325   330   335

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
            340   345   350

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
    355   360   365

Ser Ala Glu Val Pro Phe His Ile Met Leu Thr Asn Met Gly Thr Met
370   375   380

```
Glu Tyr His Asn Val Gly Ala Ile Arg Phe Arg His Asn Tyr
385             390             395
```

```
<210>  137
<211>  36
<212>  PRT
<213>  Homo sapien
```

```
<400>  137
```

```
Gly Arg Leu Leu Leu Leu Leu Leu Glu Phe Lys Leu Leu Thr Met Tyr
1           5               10              15
```

```
Gly Leu Met Pro Gly Lys Cys Cys Gly Gly Gly Ser Gln Glu Asp Trp
            20              25              30
```

```
Pro Arg Glu Pro
            35
```

```
<210>  138
<211>  264
<212>  PRT
<213>  Homo sapien
```

```
<400>  138
```

```
Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1           5               10              15
```

```
Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30
```

```
Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
        35              40              45
```

```
Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Phe Asn
        50              55              60
```

```
Ser Ser Leu Glu Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg
65              70              75              80
```

```
Asp Ile Ser Glu Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu
            85              90              95
```

```
Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu
            100             105             110
```

```
Thr Leu Ala Phe Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr
            115             120             125
```

```
Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr
    130             135             140


Ile Ser Asp Val Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln
145             150             155                 160


Ser Gly Ala Gly Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val
                165             170             175


Cys Val Leu Val Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val
            180             185             190


Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala
        195             200             205


Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His
    210             215             220


Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys
225             230             235             240


Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala
                245             250             255


Val Ala Ala Thr Ser Ala Asn Leu
                260


<210>  139
<211>  241
<212>  PRT
<213>  Homo sapien

<400>  139

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15


Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30


Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
        35              40              45


Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Phe Leu
    50              55              60
```

Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe
65   70   75   80

Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg Glu Gly
                85   90   95

Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr
            100   105   110

Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser
        115   120   125

Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val Pro Gly
    130   135   140

Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala Leu Ala
145   150   155   160

Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn
            165   170   175

Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met
        180   185   190

Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser
        195   200   205

Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly
    210   215   220

Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn
225   230   235   240

Leu

<210> 140
<211> 92
<212> PRT
<213> Homo sapien

<400> 140

Met Ala Cys His Asn Leu Leu Ser Pro Gln Ala Val Cys Gln Cys Arg
1   5   10   15

Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr
            20   25   30

```
His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val
        35                  40              45

Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Arg Leu Gly
    50              55              60

Pro Thr Gly Gln Gly Lys Gln Arg Val Trp Leu Gly Lys Asp Ser Glu
65              70              75                      80

Gly Gly Thr Trp Lys Thr Gln Arg Ala Trp Lys Arg
                85              90


<210>  141
<211>  420
<212>  PRT
<213>  Homo sapien

<400>  141

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
1               5               10              15

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            20              25              30

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
        35              40              45

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
    50              55              60

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
65              70              75                      80

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
            85              90              95

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            100             105             110

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
        115             120             125

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
    130             135             140
```

151

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
145   150   155   160

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
                165   170   175

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            180   185   190

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            195   200   205

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
    210   215   220

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
225   230   235   240

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
                245   250   255

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
                260   265   270

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
            275   280   285

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
    290   295   300

Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly
305   310   315   320

Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val
                325   330   335

Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg
                340   ·345   350

Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr
            355   360   365

His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val
    370   375   380

Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly

```
       385                    390                    395                    400


       Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr
                       405                    410                    415


       Ser Ala Asn Leu
                   420


       <210> 142
       <211> 485
       <212> PRT
       <213> Homo sapien

       <400> 142

       Met Pro Gln Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu
       1               5                   10                  15


       Thr Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr
                   20                  25                  30


       Gly Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser
                   35                  40                  45


       Ala Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val
           50                  55                  60


       Ser Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser
       65                  70                  75                  80


       Ser Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro
                       85                  90                  95


       Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro
                   100                 105                 110


       Val Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val
                   115                 120                 125


       Thr Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro
           130                 135                 140


       Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser
       145                 150                 155                 160


       Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro
                       165                 170                 175
```

```
Ala Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser
            180                 185                 190


Gly Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser
            195                 200                 205


Ala Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile
    210                 215                 220


Pro Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr
225                 230                 235                 240


Lys Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr
                245                 250                 255


Ser Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe
            260                 265                 270


Phe Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu
        275                 280                 285


Glu Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser
    290                 295                 300


Glu Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser
305                 310                 315                 320


Asn Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala
                325                 330                 335


Phe Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn
                340                 345                 350


Gln Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp
            355                 360                 365


Val Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala
    370                 375                 380


Gly Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu
385                 390                 395                 400


Val Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys
                405                 410                 415
```

Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr
        420   425   430

Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr
        435   440   445

Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala
    450   455   460

Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala
465   470   475   480

Thr Ser Ala Asn Leu
                485

<210> 143
<211> 255
<212> PRT
<213> Homo sapien

<400> 143

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
        20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Phe Asn Ser Ser Leu Glu Asp Pro Ser Thr Asp
    50   55   60

Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met Phe Leu Gln Ile
65   70   75   80

Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro
            85   90   95

Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg Glu Gly Thr Ile
            100   105   110

Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala
        115   120   125

Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val
    130   135   140

```
Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val Pro Gly Trp Gly
145             150             155             160

Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala Leu Ala Ile Val
                165             170             175

Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly
            180             185             190

Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu
            195             200             205

Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr
    210             215             220

Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser
225             230             235             240

Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
            245             250             255
```

```
<210> 144
<211> 517
<212> PRT
<213> Homo sapien

<400> 144
```

```
Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
        35              40              45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50              55              60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65              70              75              80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85              90              95
```

156

```
Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100             105             110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115             120             125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130             135             140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145             150             155             160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            165             170             175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180             185             190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
    195             200             205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210             215             220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225             230             235             240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            245             250             255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260             265             270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275             280             285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290             295             300

Met Val Ser Ile Gly Leu Ser Phe Pro Ser Ser Pro Glu Ala Ala Ile
305             310             315             320

Arg Thr Val His Thr Leu Cys Ile Lys Pro Glu Ser Phe Pro Ser His
            325             330             335

Pro Ser Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser
```

                 340   345   350

         Asn Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala
                 355   360   365

         Phe Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn
                 370   375   380

         Gln Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp
         385   390   395   400

         Val Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala
                         405   410   415

         Gly Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu
                     420   425   430

         Val Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys
                 435   440   445

         Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr
                 450   455   460

         Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr
         465   470   475   480

         Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala
                         485   490   495

         Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala
                     500   505   510

         Thr Ser Ala Asn Leu
                 515

         <210>   145
         <211>   180
         <212>   PRT
         <213>   Homo sapien

         <400>   145

         Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
         1   5   10   15

         Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
                     20   25   30

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
        35   40   45

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
        50   55   60

Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly
65   70   75   80

Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val
                85   90   95

Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg
                100   105   110

Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr
        115   120   125

His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val
    130   135   140

Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly
145   150   155   160

Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr
                165   170   175

Ser Ala Asn Leu
                180

<210> 146
<211> 232
<212> PRT
<213> Homo sapien

<400> 146

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
                20   25   30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35   40   45

Thr Glu Lys Asn Ala Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu

```
         50                        55                        60

Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu
65                  70              75                      80

Thr Leu Ala Phe Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr
                85                  90                  95

Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr
                100             105                 110

Ile Ser Asp Val Ser Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln
            115                 120             125

Ser Gly Ala Gly Val Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val
        130             135             140

Cys Val Leu Val Ala Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val
145             150             155             160

Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala
                165             170             175

Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His
            180             185             190

Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys
        195             200             205

Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr Asn Pro Ala
    210             215             220

Val Ala Ala Thr Ser Ala Asn Leu
225             230


<210>  147
<211>  396
<212>  PRT
<213>  Homo sapien

<400>  147

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15


Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30
```

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
        35   40   45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
        50   55   60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65   70   75   80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                85   90   95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100   105   110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180   185   190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195   200   205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210   215   220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225   230   235   240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
                245   250   255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260   265   270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275   280   285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
        290   295   300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305   310   315   320

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
                325   330   335

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
            340   345   350

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
        355   360   365

Ser Gly Glu Ala Thr Ser Leu Ala Ala Ala Gln His His Ala Gly Ala
    370   375   380

Pro Leu Leu Pro Val Ser Gly Ser Pro Leu Phe Pro
385   390   395

<210> 148
<211> 325
<212> PRT
<213> Homo sapien

<400> 148

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20   25   30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
        35   40   45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50   55   60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65   70   75   80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                85   90   95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
        100   105   110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
                165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
                180   185   190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195   200   205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
210   215   220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225   230   235   240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
                245   250   255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
                260   265   270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275   280   285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
290   295   300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305   310   315   320

Ile Lys Phe Ser Glu
            325

<210> 149
<211> 409
<212> PRT
<213> Homo sapien

<400> 149

Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1   5   10   15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20   25   30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35   40   45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
        50   55   60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65   70   75   80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                85   90   95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100   105   110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
            115   120   125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
        130   135   140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145   150   155   160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
                165   170   175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180   185   190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195   200   205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro

```
       210                    215                    220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225                 230                 235                 240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
                245                 250                 255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
                260                 265                 270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
            275                 280                 285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
        290                 295                 300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305                 310                 315                 320

Ile Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe
                325                 330                 335

Arg Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln
                340                 345                 350

Tyr Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val
            355                 360                 365

Ser Gly Cys Leu Ser Val Pro Pro Lys Glu Leu Arg Ala Ala Gly His
        370                 375                 380

Leu Ser Ser Pro Gly Tyr Leu Pro Ser Tyr Glu Arg Val Pro His Leu
385                 390                 395                 400

Pro His Pro Trp Ala Leu Cys Ala Pro
                405
```

<210> 150
<211> 379
<212> PRT
<213> Homo sapien

<400> 150

```
Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1                   5                   10                  15
```

165

```
Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
            35              40              45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
        50              55              60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65              70              75              80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
                85              90              95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
            100             105             110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115             120             125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130             135             140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145             150             155             160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            165             170             175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180             185             190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195             200             205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210             215             220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225             230             235             240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
                245             250             255
```

```
Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260             265             270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
        275             280             285

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290             295             300

Met Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln Leu Asp Ile
305             310             315             320

Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu Tyr Pro Thr Tyr
            325             330             335

His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp Arg Ser Pro
            340             345             350

Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser Leu Ser Tyr Thr
        355             360             365

Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
    370             375
```

```
<210>   151
<211>   110
<212>   PRT
<213>   Homo sapien

<400>   151
```

```
Val Val Thr Trp His Asn Pro Gly Ala Gly Val Pro Gly Trp Gly Ile
1               5               10              15

Ala Leu Leu Val Leu Val Cys Val Leu Val Ala Leu Ala Ile Val Tyr
            20              25              30

Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly Gln
        35              40              45

Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu Tyr
    50              55              60

Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr Asp
65              70              75              80

Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser Leu
            85              90              95
```

```
Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
            100             105             110
```

<210> 152
<211> 127
<212> PRT
<213> Homo sapien

<400> 152

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Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15          .

Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
            20              25              30

Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
        35              40              45

Thr Glu Lys Asn Ala Ala Val Cys Gln Cys Arg Arg Lys Asn Tyr Gly
    50              55              60

Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met Ser Glu
65              70              75              80

Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser Ser Thr
            85              90              95

Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly Ser Ser
            100             105      .       110

Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn Leu
            115             120             125
```

<210> 153
<211> 336
<212> PRT
<213> Homo sapien

<400> 153

```
Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
1               5               10              15

Val Leu Thr Ala Thr Thr Ala Pro Lys Pro Ala Thr Val Val Thr Gly
            20              25              30

Ser Gly His Ala Ser Ser Thr Pro Gly Gly Glu Lys Glu Thr Ser Ala
```

```
              35                      40                      45

Thr Gln Arg Ser Ser Val Pro Ser Ser Thr Glu Lys Asn Ala Val Ser
    50              55              60

Met Thr Ser Ser Val Leu Ser Ser His Ser Pro Gly Ser Gly Ser Ser
65              70              75              80

Thr Thr Gln Gly Gln Asp Val Thr Leu Ala Pro Ala Thr Glu Pro Ala
            85              90              95

Ser Gly Ser Ala Ala Thr Trp Gly Gln Asp Val Thr Ser Val Pro Val
        100             105             110

Thr Arg Pro Ala Leu Gly Ser Thr Thr Pro Pro Ala His Asp Val Thr
        115             120             125

Ser Ala Pro Asp Asn Lys Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala
    130             135             140

His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr
145             150             155             160

Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala
            165             170             175

Leu Gly Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly
            180             185             190

Ser Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala
        195             200             205

Arg Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro
    210             215             220

Ser His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys
225             230             235             240

Thr Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser
            245             250             255

Ser Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe
            260             265             270

Phe Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu
    275             280             285
```

Asp Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu
    290   295   300

Met Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn
305   310   315   320

Ile Lys Phe Ser Gln Glu Leu Trp Trp Gln Asn Lys Arg Ser Ser Asn
            325   330   335

<210>   154
<211>   55
<212>   PRT
<213>   Homo sapien

<400>   154

Met Ala Thr Gln Leu Ile Leu Val Gln Met Ser Leu Phe Pro Asp Ala
1   5   10   15

Pro His Asp Pro Ser Ser Leu Gly Gly Met His Pro Ser Ser Val Ser
            20   25   30

His Phe Arg Ala Phe Cys Thr Leu Leu Thr Leu Ser Arg Ile Pro Ala
        35   40   45

Ile Trp Val Gln Ala Ser Gln
    50   55

<210>   155
<211>   97
<212>   PRT
<213>   Homo sapien

<400>   155

Met Asn His Leu Arg His Phe Cys Ile Thr Glu Asp Leu Ala Leu Pro
1   5   10   15

Ala Val Leu Gly Met Leu Arg Val Gln Ala Glu Ala Arg Glu Ala Gly
            20   25   30

Leu Arg Gly Gln Lys Gln Gly Leu Gly Gln Ala Ser Pro Asp Arg Glu
        35   40   45

Glu Gly Leu Arg Ser Lys Pro Ala Val Leu Leu Ala Gly Gly Pro Gly
    50   55   60

Gly Tyr Lys Leu Leu Cys Ala Leu His Lys Pro Glu Ser Pro Thr Arg

65   70   75   80

Glu Asp Val Cys Glu Glu Pro Glu Thr Leu Asn Pro Ile Lys Arg Glu
                85   90   95

Lys

<210>   156
<211>   52
<212>   PRT
<213>   Homo sapien

<400>   156

Met Leu Cys Ala Ile Ser Ile Ser Leu Val Ile Phe Phe Asn Lys His
1   5   10   15

Glu Ser Ile Lys Lys Lys Arg Arg Lys Lys Lys Ala Gly Gly Thr Leu
                20   25   30

Gly Gln Ser Gly Pro Gly Gly Asp Trp Phe Pro Ala Asn Ser Thr Ile
                35   40   45

Ser Arg Thr Arg
        50

<210>   157
<211>   23
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   157
cacttccttt agttttgccc tgg   23

<210>   158
<211>   23
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   158
atcctgaatt ctgagaccat cca   23

<210>   159
<211>   21
<212>   DNA

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<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   159
gcctccagca cactcttcag t                                          21


<210>   160
<211>   25
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   160
agccggagga gatgtggctc taccg                                      25


<210>   161
<211>   20
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   161
ccgcttccca gagactcatc                                            20


<210>   162
<211>   19
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   162
gcacaaacat cggcttggt                                             19


<210>   163
<211>   27
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   163
agagagacat ttctgaaatg gctgtct                                    27


<210>   164
<211>   21
<212>   DNA
<213>   Artificial sequence
```

```
<220>
<223>  Synthetic

<400>  164
cccagcaccg actactacca a                                              21


<210>  165
<211>  20
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Synthetic

<400>  165
agctgcccgt agttctttcg                                               20


<210>  166
<211>  27
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Synthetic

<400>  166
ctgaaagcag gtcacccctg agatcct                                       27


<210>  167
<211>  21
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Synthetic

<400>  167
cagagcttgg ccaggttcta a                                             21


<210>  168
<211>  19
<212>  DNA
<213>  Artificial sequence

<220>
<223>  Synthetic

<400>  168
tgctagggtg cccctctgt                                                19


<210>  169
<211>  24
<212>  DNA
<213>  Artificial sequence
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<220>
<223>   Synthetic

<400>   169
cctttagggc ctgggacaac cacg   24

<210>   170
<211>   22
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   170
tggataacaa gcccacaaat ga   22

<210>   171
<211>   23
<212>   DNA
<213>   Artificial sequence

<220>
<223>   Synthetic

<400>   171
cctctagttc cagccccttt tag   23